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FINDING MAIN IDEA: THE EFFECT OF FORM, IDEA STRUCTURE, TASK AND LENGTH UPON GRADE SIX READERS' FORMULATION OF MAIN IDEA, STRATEGY USE, AND SELECTION OF TEXTUAL INFORMATION

by

© Grace D. McPike

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ABSTRACT

The main purpose of this study was to investigate how form, idea structure, task and length of the passage affected the process of finding main idea and the quality of the main idea produced. It also described grade six children's definition of main idea and how their strategy use for finding main idea, as well as their selection of textual information, was affected by the interactions of the variables. Lastly, the study provided a conceptual definition of main idea.

The first five areas of enquiry examined the interactions noted among the variables of form, idea structure, task and length upon the scores achieved by grade six readers. This was achieved through a four-way analysis of variance. The sixth and seventh areas of enquiry were studied by interviewing proficient and very proficient readers as they formulated main ideas. The last area of enquiry yielded a definition of main idea.

Results of the statistical analysis revealed that formulating main idea was directly affected by task, form, and idea structure. Length was not a significant independent variable affecting total score, but it interacted with form and structure influencing the subjects' formulations of main idea. The interactions among the four variables altered the conclusions drawn when each variable was considered singularly. These interactions emphasized the complicated nature of the interaction between the reader and writer (text).

The interviews revealed that while grade six subjects gave only vague definitions when they were asked to define main idea, their operations revealed a sophisticated understanding of the concept. A

classification of their operations revealed the use of ten major strategies for finding main idea. Although the readers intuitively and flexibly used these strategies, their inability to linguistically describe their mental operations hampered their explanation of their actions.

The reader's strategy use and the form of the passage interacted with the reader's notion of what textual information was significant. When processing narrative, the reader selected information related to character and plot. For exposition, the main reason for information being important was that it established the major topic or event. Of no significance was information not related to the central conflict or the topic of the passage. Readers also discarded information they already knew or which they believed to be superfluous. The reader's use of information from the text revealed that context was not contained within the text, nor was it static. Rather, context represented an interaction between the reader and writer (text).

On the basis of these observations, a general conceptual definition of main idea was produced. Also the operational definitions for finding main idea of narrative and exposition revealed that only one definition of main idea glossed over the differences in purpose and task placed upon the reader as he interacted with the writer through each of the forms. Main idea for exposition was a statement which identified the topic and the different points made about the topic. The main idea in narrative was symbolic in nature and therefore produced other more general insights into life or themes.

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CHAPTER 1

INTRODUCTION

From the beginning of reading research, the ability of a reader to find the main idea of a passage has been considered a measure of that reader's ability to comprehend the passage. Based on this assumption, reading comprehension tests devote a large number of questions which ask the reader to select the main idea, the topic, or the title, as if this message were contained in the work itself. Teachers, in turn, devote a great deal of instructional time teaching students strategies that will help them find the main idea of a passage. Yet, to date, an explanation of how finding main idea related to comprehending text has not been developed.

Several important questions need to be asked when research into finding main idea is undertaken. First of all, is finding the main idea of a work a valid measure of a subject's comprehension of a passage? Perrine (1956) suggests that the object of reading is not merely to find the message as if the idea were the only important ingredient in the work, but that the idea is only part of the total experience which the work communicates. If the selection of main idea cannot be equated with the comprehension of the total message of the work, then why should it be stressed or studied at all? It may be significant in that establishing the essential idea which is common to all of the material in the passage helps the reader organize all of that information in the passage so that he can understand the information and assimilate it more easily. How much of the information he requires from the passage in order to determine its commonality and in order to assimilate it may depend upon his background experience. In this way, the main idea does not theoretically lie in the work, but with the interaction between the reader and the text. Such an interpretation would suggest that finding main idea should not be taught, nor tested, as an end in itself. Rather it should be considered as a means to an end, the end being the total comprehension of the work based upon the interaction between the reader and writer (text).

The categorizing ability required by the reader to determine the elements of commonality and then to generalize them into a single thought seems to be complicated and complex. Yet, little or no research has been undertaken to determine how the reader processes information to find main idea, and how he uses main idea to help him comprehend the work. While strategies for teaching main idea abound, they are largely based on teacher intuition of how readers find main idea.

Finally, the most significant question relates to the concept of main idea itself. Researchers have provided a number of definitions for the term. While one researcher defines main idea as a sentence summary of a passage, another defines main idea as a generalized insight, or as the most important idea found in the passage. The problem in definition lies in the ambiguity over what the term represents. It may be that researchers believe they are measuring one concept, whereas the reader has processed the information in the passage on the basis of a different concept. No studies to date have explored what children understand main idea to be. What is missing, yet necessary, is a conceptual definition which relates the process of finding main idea to the process of comprehending text.

Past research in the field has not been helpful in developing this conceptual understanding of how the use of processes and strategies enhance the refinement of skill development. Rather the field represents a fragmentation of philosophy. On the one hand, the perception of main idea as a skill has done little to provide an understanding of how main idea fits into the comprehension process. Yet it has been a major influence in education from Davis' early factor analysis studies through to the hierarchical lists provided in the sixties. On the other hand, the cognitive strategies approach which attempts to describe the mental operations underlying the process of finding main idea needs to be related to the refinement of skill performance and comprehension. What is required is a multi-dimensional model which focuses "on the integration of components between and within planes" (Swanson, 1982, p. 315).

Seemingly, two distinct studies emerged. A statistical portion revealed the effects of textual and task variables on a reader's choice or formulation of main idea. This part of the study served to establish that textual and task variables did affect a reader's proficiency in the skill but did not explain how the variables affected the reader's processing. The second aspect of the study, through observation of the processes used by the readers, explored the interaction of the variables as the reader searched to find meaning. The studies complemented one another in that the first indicated that answers did vary because of text and task variables while the second emphasized the significance of the reader as he dealt with text and task variables to find meaning. From the observation of all of these aspects in relation to each other, the researcher was able to produce a general conceptual definition of main idea which accounted for reader, text and task variables.

Purpose of the Study

It was the purpose of this study to investigate how finding main idea related to the process of comprehending, and to determine how specific text and reader variables affected not only the process of finding main idea, but also the quality of the main idea produced. Furthermore, it was the purpose of this study to investigate and describe children's definition of main idea, and to report what aspects of textual context children used to find main idea and why. Their conceptions of what information was important or was not important was investigated to observe how the reader created the contextual framework used to interpret the main idea of the work.

Since the research to date had not ascertained how the form and structure of the passage, the length of the passage, and the task demanded of the reader influenced his ability to formulate a main idea, it was the purpose of this study to investigate the effects of these variables upon the reader's processing for, and production of, main idea. Specifically, the effects of narrative and expository forms, of explicitly stated and implied main idea structures, of short and long passages, and of producing or recognizing the main idea were investigated.

Definitions

Main Idea

At the outset of this study, the meaning of main idea was ambiguous. A major purpose of this research was to define the term. Therefore, the definition of main idea is presented in Chapter 7.

Comprehension

The Dictionary of Reading and Related Terms (IRA, 1981) defines comprehension as a) the process of getting the meaning of a communication, and b) the knowledge or understanding that is the result of such a process (pp. 60, 266). This overall process of getting meaning is a complex of interrelated processes which result in an understanding of sequences of connected sentences (Frederikson, 1982). The reader interacts with the writer's expressed thoughts through the medium of print to formulate a message or multiplicity of messages. To the extent that the reader and writer share a common context, socially, linguistically, and logically, a reader will be able to share the message intended by the writer. The reader, though, will also construct personal meaning based on his unique constructs and attitudes. In this way, the comprehension of a work represents a shared meaning by the reader's interaction with the writer's ideas. The degree to which a common meaning is shared is dependent upon the structure and intent superimposed by the writer on the work, and by the reader's purpose for reading as well as by his facility in decoding and interacting with the logical constructs and language of the writer.

Proficient and Very Proficient Readers

A proficient or very proficient reader was a subject who scored at the 50%ile or higher on the reading sub-test of the Canadian Test of Basic Skills and who was selected by his teacher as a proficient or very proficient reader.

Research Questions and Hypotheses

In order to achieve the purposes set for this study, the following research questions and null hypotheses were composed and addressed.

Research Question 1

Is there a difference in performance when the student finds the main idea for a short passage compared to when he finds the main idea for a long passage?

Hypothesis 1.1. There is no significant difference between the total scores achieved by students for short passages compared to long.

Research Question 2

Is there a difference in performance when the student finds the main idea of passages which have the main idea explicitly stated compared to implied?

Hypothesis 2.1. There is no significant difference between the total scores achieved by students for passages explicitly stating the main idea compared to those implying the main idea.

Research Question 3

Is there a difference in performance when the student finds the main idea of passages when the task he is given is to recognize the main idea compared to produce the main idea?

Hypothesis 3.1. There is no significant difference between the total scores achieved by students when they recognize main idea compared to when they produce main idea.

Research Question 4

Is there a difference in the performance of students when they choose main idea for narrative compared to exposition?

Hypothesis 4.1. There is no significant difference between the total scores achieved by students for narrative passages compared to expository passages.

Research Question 5

Does an interaction between two, three or four of the form, idea structure, task or length variables affect a student's performance when he finds the main idea of a passage?

Hypothesis 5.1. There is no significant difference in the total scores achieved by students due to the interaction between the length and the idea structure of the passage.

Hypothesis 5.2. There is no significant difference in the total scores achieved by students due to the interaction between the length and the form of the passage.

Hypothesis 5.3. There is no significant difference in the total scores achieved by students due to the interaction between the length of the passage and the task given.

Hypothesis 5.4. There is no significant difference in the total scores achieved by students due to the interaction between the idea structure and the form of the passage.

Hypothesis 5.5. There is no significant difference in the total scores achieved by students due to the interaction between the idea structure and the given task.

Hypothesis 5.6. There is no significant difference in the total scores achieved by students due to the interaction between form and task.

Hypothesis 5.7. There is no significant difference in the total scores achieved by students due to the interactions among length, idea and form.

Hypothesis 5.8. There is no significant difference in the total scores achieved by students due to the interactions among length, idea and task.

Hypothesis 5.9. There is no significant difference in the total scores achieved by students due to the interactions among length, form and task.

Hypothesis 5.10. There is no significant difference in the total scores achieved by students due to the interactions among idea, form, and task.

Hypothesis 5.11. There is no significant difference in the total scores achieved by students due to the interactions among idea, form, length, and task.

Research Question 6

Is there a difference in the students' conceptual understandings of the term "main idea", as evidenced by their definitions and by their performance.

Research Question 7

How does the student process the information in the passage in order to determine main idea?

7.1 What strategies do very proficient and proficient readers use to find main idea?

7.11 Are any strategies form specific, length specific, structure specific, task specific, or passage specific?

7.2 What context is relevant to proficient and very proficient readers when finding main idea?

7.21 What context is used by the reader?

7.22 For what reason does he find information important?

7.3 What context is not relevant to proficient and very proficient readers when finding main idea?

7.31 What context is not used by the reader?

7.32 For what reasons does he not find information important?

Research Question 8

What is main idea?

8.1 What definitions are provided by researchers?

8.2 What definitions are provided by students?

Organization of the Study

The study was conducted in three stages. During stage one, passages and questions were selected for the study. Two pilot studies were conducted to investigate the suitability of the passages and the questions, and to predetermine the possible effects created by the form, idea, length and task variables. On the basis of the insight provided, the major tests used in the study were generated and the questions for the in-depth interviews were formulated.

Stage two involved the administration of the tests to 240 grade six students. Each subject was required to silently read four passages. He was asked to recognize the main idea for two passages and to produce the main idea for the remaining two passages. Thirty-two different subjects were interviewed in depth in order for the researcher to ascertain how they processed the information provided in the same passages as those in the tests, and to determine what definition of main idea they were using to determine their answers. The in-depth interviews were also undertaken to determine what information from the text was considered important or non-important by the reader, and to determine what comprised the contextual frame the reader used to formulate main idea.

The last stage involved an analysis of the data. A four-way analysis of variance was used to answer research questions one through five. Research questions six and seven were answered through the categorization of interview responses. Relationships between the interview response information and the significant statistical information arising from the data analysis were then inferred and reported.

Limitations of the Study

The limitations of the study are as follows:

1. The study was exploratory in nature. While the researcher was aware that many variables affected the formulation of main idea, only four major variables were controlled and manipulated. The effects produced by the narrative or expository form, the implied or stated main idea, the short or long length, and the recognize or produce task were observed. The results found to be

significant need to be substantiated through further research.

2. The study was limited to two types of prose: the story narrative and the expository prose. The conclusions of the study thus relate only to these two forms.

3. Only one aspect of the internal structure of the passages was taken into consideration. That aspect was whether the main idea was stated or implied. How other aspects of the structure affected the results and the reasoning of the subjects was observed through the in-depth interviews. In that certain strategies, for example, categorizing, occurred more for certain passages than for others, the conclusions which were based on the comparisons between two single passages need to be substantiated through research with several passages. For example, the conclusions of a three-way analysis of variance were based on the results of only one passage. Therefore, these results could have been produced by other factors than those observed because the other factors could not be randomized.

4. Due to the complexity of the study, and the manipulation of the various combinations of the variables, both of the narrative passages were presented prior to the expository passages in the tests. While the order of presentation was altered in the in-depth interviews and did not seem to produce any effect, the order of presentation of the passages in the test may have affected the results. This order may have affected the comparison between the scores produced for the narrative and expository passages.

5. The research techniques used to probe the subjects' strategies and use of context did not necessarily provide direct

access to the actual processing undertaken by the proficient and very prodicient readers. Rather, subjects related in retrospection what they considered important and why. However, it is hoped that such retrospection provided insight into the activities undertaken by the subjects, and into their definition of main idea.

6. Only proficient and very proficient readers were interviewed. The conclusions based on their responses cannot be applied to non-proficient readers. Further research would have to be undertaken to observe how non-proficient readers process information when finding main idea, and to determine what definitions non-proficient readers have for main idea.

7. The population of the study was limited to grade six students. The conclusions based on the analysis of the results are restricted to sixth grade students only.

Significance

This study was generated to investigate the effects of text structure and form on the reader's formulation of main idea. It assessed when grade six students had the least difficulty in giving the main idea. By observing the effects produced by the interactions among length, task, form and structure variables, the researcher was able to determine what factors and interactions of factors most significantly affected grade six students' abilities to find main idea. The conclusions produced by this study will serve to create a conscious awareness of what tasks are more complex for a grade six student and why.

Furthermore, the study produced insight into why these variables altered the answers given by the students. The interviews revealed the significance of the reader and writer (text) interaction, in that context could not be regarded as a component located in the text. It revealed the flexibility in strategy use, and why aspects of the content were or were not important to a reader. The insight also suggested that "important ideas" were not wholly determined by the writer of the text, but were important only in relation to the reader's needs and tasks.

This study examined some of the assumptions which underly past research studies on main idea. Furthermore, whether grade six students possessed a metacognitive awareness of how they found main idea had not previously been ascertained. Also, little was known about their concept of what information in the text is important and why. Since this study related their strategy use to their sense of what is important, it stressed the significance of purpose and task, as well as background knowledge, in creating a contextual frame for the interpretation of main idea. Hopefully the study will generate further research which will clarify, even further, the role finding main idea plays in comprehending. Some directions for further research in this area have been provided.

Many of the previous studies concentrated on the product of comprehension, and main idea was studied in terms of the student's ability to find main idea. How the individual attempted to find main idea was not studied previously. The conclusions of this research will aid teachers by creating an awareness of the purposes for teaching the finding of main idea, and by providing an operational definition. The study also indicated that a number of interacting influences affected children's selection of main idea and outlined strategies used by proficient readers. It outlined those strategies most conducive to finding main idea for narrative and for expository passages. Hopefully, these results can be practically applied to aiding children in their attempts to find the main idea for passages.

Plan of the Report

Chapter two surveys the related literature, and presents a theoretical framework for the study. Then chapter three explains the design of the research, describes the instruments, and explains the treatment of the data. Chapter four summarizes and discusses the results of the statistical analysis. Chapter five summarizes the results of the interviews, and provides insights into the subjects' concepts of main idea, their use of strategies and their utilization of context in finding main idea. Chapter six presents a conceptual definition of main idea. Finally, chapter seven contains a summary of the results, concluding remarks, and implications for teaching, research and theory.

CHAPTER 2

REVIEW OF RELATED LITERATURE

This chapter was designed to present the theoretical framework from which the concept of main idea was studied. In order to examine a reader's formulation of the main idea, it was necessary to consider the effects of two major factors on the formulation of any message. The reader and the text (an icon of the writer's thought) both play a significant role in the formulation of the message. For this reason, their roles are described in detail in the following sections of this chapter. Lastly, an overview of the studies on main idea is provided, and the present research study is related to the past research conducted in the field.

The first topic to be explored is the formulation of the message.

The Formulation of the Message

To study the process of finding main idea involves the study of how a message is formulated. In oral communication, both speaker and listener are necessary for the formulation of the message. In this sense, comprehension of meaning involves primarily people, and only secondarily, a message. The message is the product of the interacting between two minds: it is not a message created by a speaker and "passed on" to the listener. The message is constructed only as the listener actively contributes his wealth of experiences and his understandings of language. Thus, the message may be defined as the degree of shared meaning achieved through an active interaction between reader and listener. This bi-construction of the message determines to what degree comprehension, or shared meaning, will occur. In oral communication, then, comprehension is not an all or nothing phenomena. Comprehension is the degree of overlap of common meaning. The degree of overlap will be determined by the degree to which both speaker and listener share purpose, language, and experience, and by the degree to which they can overcome barriers restricting that communication. Figure 2.1 outlines the process of sharing meaning.

A similar process of formulation occurs when a reader interacts with print. While reading comprehension involves primarily a reader and a writer, yet a third factor is involved. While on the one hand the print can enhance the formulation of the message, on the other hand, it can provide a barrier, for it removes the reader from the writer and disallows further communication to clarify aspects of the message contributing to the sharing. Furthermore, if the reader finds decoding the symbols difficult, the written symbolic system provides a barrier to the interaction between writer and reader. The paradox of written communication, then, is that in one sense, the print removes the reader from the writer thereby restricting the potential for an enlarged amount of shared meaning; on the other hand, print immortalizes the writer's share of the meaning. The reader may reread, reconsider, and reformulate his share of the message through interacting with the print. Yet, this freedom to rethink and reread necessitates control on the part of the reader to ensure that he adequately samples all of the text, for the writer is not able to tell him that he has not considered all of the information. This negotiating with text replaces the negotiating with the writer, making the process doubly abstract. Text, in this sense, is an icon representing a writer's contribution to the formula-

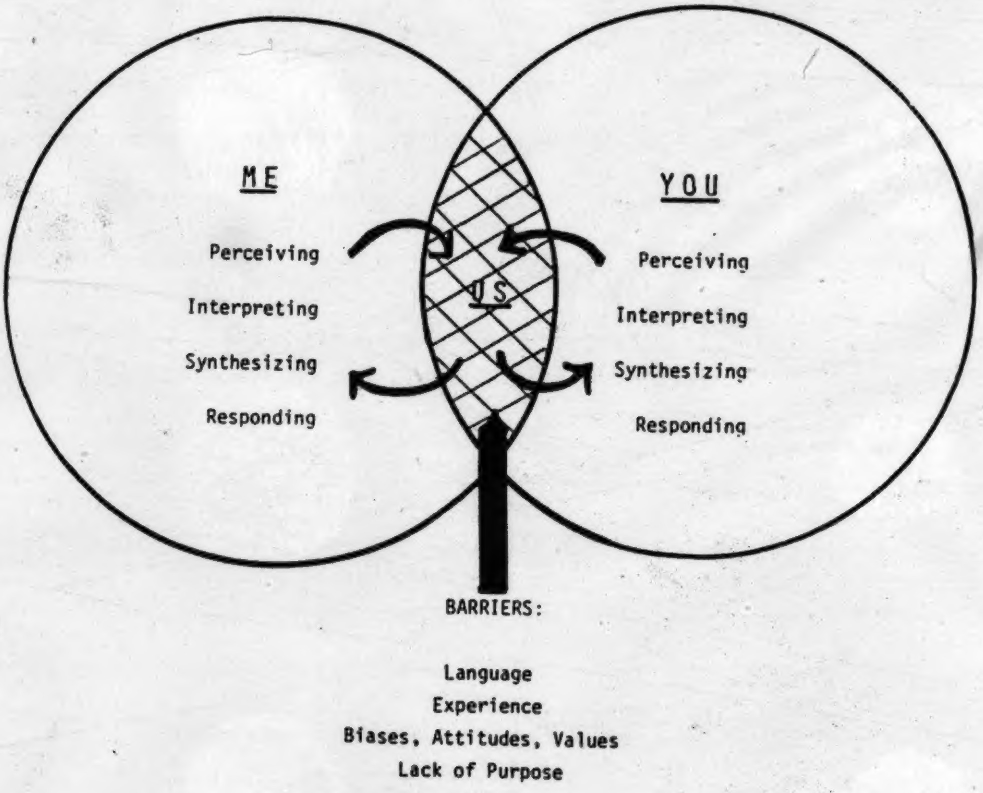

ME
Perceiving
Interpreting
Synthesizing
Responding
US
YOU
Perceiving
Interpreting
Synthesizing
Responding
BARRIERS:
Language
Experience
Biases, Attitudes, Values
Lack of Purpose

Figure 2.1

The Challenge of Sharing Meaning When Communicating Through Speech or Text.

tion of a message.

Comprehension of text, then, involves far more than a reader's recall of the author's ideas. Shared meaning necessitates the reader's "going beyond the information given" to construct a message he can internalize within his knowledge constructs. To what extent the intent of the writer matches the message formulated by the reader remains difficult to ascertain, as does the process used by the reader to formulate that idea. What research from several fields has ascertained, however, is that a proficient reader balances his strategies and processing to maximize his message construction. For example, the reader may use only a few metamemorial structures for finding main idea if he possesses a wealth of knowledge related to the topic he is reading about. If he possesses little of the knowledge base necessary for sharing meaning with the author, he may rely more heavily on these abstract processes to aid him in his devising of meaning.

The balancing of the use of these strategies and knowledge stores reflect the highly interactive nature of a great number of variables (see Figure 2.2). The reader-related variables affecting the formulation of the main idea of a passage relate to the use of knowledge, to the processing and acquiring of new information, to the utilizing of inferencing, and to the utilization of text structure to react to various demands for various purposes. The writer-related variables are inherent in the logical organizational framework of the text. These factors will be discussed in more detail in the next section.

Factors Affecting the Formulation of the Message

What message the reader will construct will be influenced by the

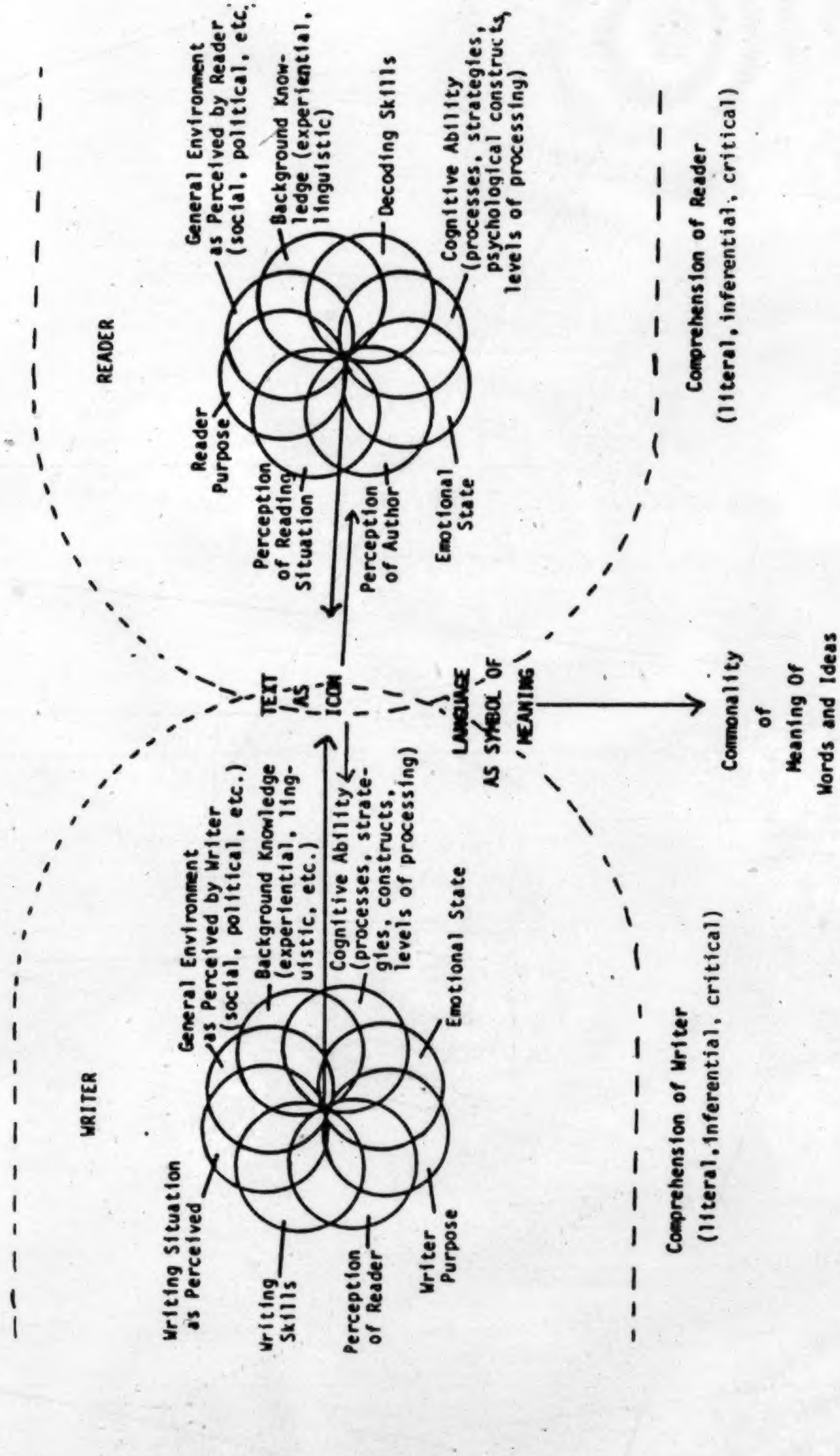

WRITER
Writing Situation as Perceived
Writing Skills
Perception of Reader
Writer Purpose
General Environment as Perceived by Writer (social, political, etc.)
Background Knowledge (experiential, linguistic, etc.)
Cognitive Ability (processes, strategies, constructs, levels of processing)
Emotional State
Comprehension of Writer (literal, inferential, critical)
TEXT AS ICON
LANGUAGE AS SYMBOL OF MEANING
Commonality of Meaning Of Words and Ideas
READER
Reader Purpose
Perception of Reading Situation
Perception of Author
Emotional State
General Environment as Perceived by Reader (social, political, etc.)
Background Knowledge (experiential, linguistic)
Decoding Skills
Cognitive Ability (processes, strategies, psychological constructs, levels of processing)
Comprehension of Reader (literal, inferential, critical)

Figure 2.2

The Process of Comprehending Meaning of Written Discourse level of processing demanded by the task, and upon his ability to use prior knowledge and cognitive strategies. Furthermore, the message he formulates will be affected by his ability to infer meaning, and by his ability to cope with text structure. If learning new information is involved, the reader may rely more heavily on the text, and meaning may be altered.

The amount of structure imposed by the writer upon the text reflects a logical organizational framework which influences task and strategy demands. The reader-related factors will be considered first.

The Use of Prior Knowledge

Discourse processing studies indicate that readers remember the gist of a piece of discourse because they possess background knowledge of what constitutes a story or a piece of exposition (Kintsch and van Dijk, 1978; van Dijk, 1977; van Dijk and Kintsch, 1977). They bring their prior knowledge to the current reading situation and abstract information on the basis of this past framework of knowledge. Non-essential information within the text is ignored, so that the gist of a message may be attended to and remembered (Zangwill, 1972). Continuous processing operations are utilized by the reader to "glean what might be considered relevant units from the text, and to summarize the ideas into manageable form in accordance with what can be handled by the memory system (Tierney, Bridge and Cera, 1978, p. 552). Simultaneously, the readers construct meaning by "using information from the text in association with their background of knowledge" (Tierney, Bridge and Cera, p. 554). A meaningful interpretation of the text necessitates simplifications (omissions), consolidations (additions) and retransformations (substitutions). How readers selectively attend to and process the incoming information seems to be influenced by the integration of their knowledge of the world with the knowledge contained in the text.

Many studies have corroborated the significant role played by the reader's store of knowledge in his comprehending and recalling of text (Dooling and Lachman, 1971; Bransford and Johnson, 1972; Carroll, 1972; Haviland and Clark, 1974; Phillips-Riggs, 1981). Prior knowledge seems especially important when the reader draws implicit conclusions (Gordon, Hansen, and Pearson, 1978).

The kinds of knowledge a reader utilizes in searching for the gist of passage meaning will now be considered. The mental process involved in searching for the gist is outlined by Kintsch and van Dijk (1978):

> First, the meaning elements of text become organized into a coherent whole, a process that results in multiple processing of some elements and, hence, in differential retention. A second set of operations condenses the full meaning of the text into its gist. These processes are complemented by a third set of operations that generate new texts from the memorial consequences of the comprehension processes. (p. 363)

Whether these mental processes can be broken down into three sets of operations or not, the reader is involved in transforming, reproducing and reconstructing text information. In all probability, the reader uses his knowledge of the world, his knowledge about language and his metamemorial knowledge simultaneously to some degree. Researchers have attempted to describe the system the reader uses to relate the new information contained in the text to his present world of experiences (Bartlett, 1932; Norman and Rumelhart, 1975; Kintsch, 1974; Schank, 1972). Whether the label used to describe the systematization of prior knowledge is labelled "schemata", "conceptual framework", "schema" or "scripts", they reflect an organization of information which is used as an anticipatory framework in determining what information from the text will be selected and processed. In any one given situation, a lack of development in one area of knowledge would necessitate the greater use of another kind of knowledge in order to construct the gist of the passage. It may be due to this very versatility in manipulating the kinds of knowledge that some readers are more proficient than others at comprehending main idea.

Giboney's (1979) concept of intersubjective knowledge attempts to describe the relationship between the knowledge of the reader and his interaction with the knowledge stated in the text (see Figure 2.3). He uses Kjolseth's (1972) description of four kinds of shared knowledge: background, foreground, emergent and transcendant. While Kjolseth defines background knowledge as the background competence to understand the message, that is, the knowledge of the symbol system, Giboney (1979) suggests that the knowledge of the different cultural, institutional conventions and rules governing behavior needs to be included. This basic knowledge of language and of the world provides a potential base, out of which the second kind of knowledge, labelled foreground knowledge, is selected according to the needs of the reader contextualizing within a particular meaning context. According to Giboney (1979) it is the encounter that bridges this background and foreground knowledge. During the reading encounter, as the reader shares specialized knowledge with the writer, to some degree, the meaning unfolds in a constantly evolving situation. Through the interpretation of the message by means of the background and foreground knowledge, the third and fourth kinds of

Figure 2.3 has been removed due to copyright restrictions.

The model presented in this figure is Giboney's Model of Intersubjective Knowledge, and may be found on page 188 of Giboney, V. Communicative Aspects of Reading Comprehension: A Theoretical Study of the Role of Intersubjectivity in Written Language Communication. Unpublished Doctoral Dissertation, Department of Elementary Education, University of Alberta, 1979.

knowledge emerge. A knowledge of the meaning of the passage as it has evolved to the present moment, or the emergent ground, and the transcendent ground or a knowledge of how the situation is most likely to evolve, are activated. These two forms immediately become prior knowledge which is then applied to the text as the meaning continues to unfold.

A reader could conceivably possess a number of knowledge frameworks he could manipulate to compensate for an insufficient store of information related to the subject of the passage. For example, Pace (1978) noted that the importance of prior knowledge seemed to decline with age. It may be that a reader's awareness of metamemorial strategies enables him to maximize his understanding of the gist of the passage. Brown (1974) describes this knowledge about memorial strategies or plans the reader can instigate for the sake of cognitive economy (but secondary to the goal of remembering, Meecham, 1972) as "knowing how to know". Through the use of these strategies and plans, a reader can organize, transform or maintain information at a given level of processing (Craik and Lockhart, 1972).

The final form of knowing, "knowing about knowing", or the plan to form a plan, requires that a reader has an understanding of the state and functioning of his own processing strategies, and realizes that he needs to use certain strategies. This element of introspective knowledge adds an important dimension to the understanding of how a reader integrates new information with the old in order to comprehend. Memory monitoring (Flavell, 1971), executive control of mnemonic activities (Butterfield, Wambold and Belmont, 1973), and strategy transfer (Brown, 1974; Campione and Brown, 1974) emphasize the significance of the wide variety of kinds of knowledge a reader uses to create meaning for a passage.

In conclusion, background knowledge may stand in a reciprocal relationship to the processing that the reader must do: different qualities of processing are required with different degrees of instruction-relevant experience in order to achieve instructional success (Rothkopf, 1978, p. 465). Such use of prior knowledge seems related to Craik and Lockhart's (1972) concept of levels of processing.

These organizational frameworks would also influence the acquiring of new information. The knowledge structures prepare a reader for anticipating certain kinds of information but not other kinds. Schemas, in this sense, could be considered as "plans for perceptual action" and "readiness for particular kinds of structures" (Neisser, 1976, p. 21). On the other hand, newly assimilated information modifies the original schema. How this process of acquiring knowledge affects the reader's ability to comprehend is discussed in the next section.

Information Processing: Relating New Information to Old

"Meaning is always a matter of relation" (Upton, 1961, p. 30). According to Piaget (1957) and Bruner (1962) cognitive processing involves the formation of new categories of thought through a combining, reshuffling and rearrangement of existing frames of knowledge. While the cognitivists generally describe the interaction that takes place between the writer and reader through the text, artificial electronic communication theories describe a one-way mode of communication which involves the sharing of signal and code systems between a transmitter and a receiver who decodes the signal. The cognitivists would argue that the reader is far more active in creating the message through the selective choosing of cues and through the use of prior experience.

Likewise, the linguistic theorists such as Smith (1971) and Goodman (1976) who base their theories on linguistic competence as described by Chomsky (1957) rather than on communicative competence, exemplify the inadequacy of one view over another to explain how information is processed. Due to the complexity of the mental operations involved and their implicit nature no adequate theory explaining information processing has emerged, but a number of experimental strategies has yielded information that might partially explain the process.

The discussion on background knowledge revealed a process of analysis and synthesis. The reader analyzes the structural units within the text and assimilates representations of these into his existing knowledge structures. This processing of structural units seemingly occurs at a number of levels simultaneously: at a letter level, a word level, sentence level or discourse level. As noted by Frederikson (1977), "a discourse is processed as a multi-level structure containing units as small as individual concepts and relations connecting concepts, and as large as macrostructures consisting of networks of connected propositions (p. 58)". As noted by Giboney (1979), information acquired early in the text influences the processing of related information further in the text. These basic units of understanding have been studied by a number of researchers, by analyzing the recalls of subjects. A comparison of the pre-identified semantic structure and the structure used by the reader reveal that readers recall only a portion of the semantic content (Brothers, 1972; Frederikson, 1975a, 1975b; Meyer, 1974). Furthermore, the recalls are organized in clusters such as concepts and events.

How existing knowledge is organized to allow such integration of the structure of the text discourse into the reader's own knowledge framework has been tentatively explained by frame theory (Minsky, 1975) and schema theory (Norman and Rumelhart, 1975; Kintsch, 1974; Schank, 1972). Minsky's notion of memory consists of an organized group of structural units called frames which allow for the inclusion of new information by the changing of the details of the frames. Each frame is a network structure of visual concepts, experiences, events, and semantic content. Each frame contains slots, some of which are relatively fixed. The others are filled on the basis of the incoming information which rounds out the conceptual framework. These frames are related into systems which represent action sequences, cause-effect relationships, etc.

The notion of organization is central to all theories attempting to explain the cognitive structures. The notions of schemas or schemata are used to explain how the mind acquires new information. Mandler (1979) describes a schema as "a cognitive structure - an organized body of knowledge...formed on the basis of past experience with objects, scenes, or events and consists of a set of (usually unconscious) expectations about what things will look like and/or the order in which they will occur" (p. 7). Repeated experiences of similar events and situations generate mental structures or schemas (Kintsch, 1974; Mandler, 1979) which create a phenomenon of familiarity. The notion that these schema can reflect anything from physical objects to the common structure of stories has led to an intensive study of stories in order to describe what the overall common structure might be. Kintsch (1977) and Kintsch and van Dijk (1978) broadly describe story structure while Mandler and Johnson (1977), Stein and Glenn (1979), and Thorndyke (1977) provide a more detailed analysis of story grammars. The use of such schema for "top-down" conceptually-driven processing assist in the synthesizing of incoming information. Text schemas may, in fact, be a prerequisite for the utilization of other variables such as the use of prior knowledge and the generation of inferences.

Readers can utilize a schema of story structure to direct comprehension (Johnson, 1979; Mandler and Johnston, 1977; Rumelhart, 1975; Harris and Smith, 1972; Karlin, 1978). A story may be new; but the reader's set of expectations about story structure allows him to "short-circuit" the comprehending process (Mandler and Johnson, 1979). As a reader reads, words are maintained in the working memory until they can be grouped into a clause (Foder, Bever and Garrett, 1974). At this stage the representation becomes abstract and the reader tends to store concepts. The categorizing of words and clauses into larger higher units seems imperative, the longer and more complicated the story becomes.

On the other hand, if a reader does not possess the schema for top-down processing, he is forced to engage in a "bottom-up", text based or data-driven form of processing (Munro, 1979) where he starts with the smaller bits of information and inductively chunks them into larger units. While both "top-down" and "buttom-up" processing are necessary in reading, the use of only one would make the task of comprehending very difficult, if not impossible.

The processing of new information might influence the formulation of the meaning since the reader might have to utilize strategies and the context of the passage differently from how he would use them if he were familiar with the material. His purpose for reading might also change, since his most important task would be to make sense of the passage rather than to remember the meaning of the passage. He may attend more carefully to the details of the passage and less carefully to the overall meaning of the passage. Seemingly, his ability to infer meaning may be reduced because he would not possess an adequate use of prior knowledge. His "top-down" processing would also be reduced, since the use of "top-down" processing requires the inferring of meaning.

The role of inferring, as it relates to finding the gist of a passage will be discussed in the next section.

Inference

While reading, the reader is in a constant state of relating current text to previous text, to prior knowledge, and to the task demands imposed by himself and/or others. His ability to infer, to make inductive leaps based on background knowledge, is crucial if he is to make sense of print.

Research on inferencing is problematic due to the failure of researchers to distinguish backward-looking inferences from forward-looking inferences. They represent two different kinds of inferencing. Backward-looking inferences are those which connect new information in the text to previously read textual information (Schank, 1975; Macleod, 1978). Forward-looking inferences are those using information given so far to predict a further state or action. Concepts that are labelled as connective inferences (Frederikson, 1975), enabling inferences (Hildyard, 1978), text-connecting inferences (Omansen, Warren and Trabasso, 1978), presuppositional and consequential inferences (Paris and Lindauer, 1976; Paris and Upton, 1976) all seem to refer to backward-looking inferences. Omansen's et al (1978) slot filling inferences, Frederikson's extensive inferences and Hildyard's pragmatic inferences all seem to refer to what Schank and Macleod refer to as forward-looking inferences. Such problems with terminology tend to confuse the understanding of the significance of inference as it relates to finding main idea.

Regardless of the labels, though, two significant insights affect the comprehending of text. One is that the ability to infer may be developmental (Paris and Lindauer, 1976; Paris and Upton, 1976; Omansen et al, 1978; Hildyard, 1978; and Pace, 1978). Secondly, strategies, especially text-connecting inferencing may separate proficient from non-proficient readers (Macleod, 1978).

Since inferring is crucial to proficient reading, inference generation as an integrating agent should be considered. In finding main idea, the main idea may be more than the sum of the details. For example, Animal Farm by George Orwell, considered as the sum of the details, represents a story about a group of animals. Through inferring from previous knowledge, the reader becomes aware that the meaning is more than the sum of the parts. A broad range of world knowledge must be spontaneously integrated with the text to form generalizations that go beyond the information given, and that result in the formulation of a theme about the Russian Revolution. It is primarily in the area of inference where slight changes in the reader's input can result in a great difference in the communication of the ideas (Johnson et al, 1973). When main idea must be inferred from the passage, the use of prior knowledge as the basis for intuitive leaps greatly influences the meaning that will be generated by the reader, and finding main idea is placed at a more difficult level of processing.

How the reader utilizes his background knowledge, and the extent to which he must infer in order to generate meaning will be determined to a great extent by the task demands placed upon him and by the structure of the text. These text related or writer related factors will now be discussed.

The Text Structure

While the reader is actively involved in formulating the meaning, the text is the representation of the writer's contribution to the message. Attempts to describe textual organization have led to theories describing propositions and their relations.

Kintsch and van Dijk (1978) have postulated that the meaning of the writer may be represented by a structural list of propositions including a relational concept and one or more arguments. Fagan's (1978) conceptualization of text adds a dimension to the work of Kintsch. Whereas Kintsch maintains that the proposition is semantic in nature and identified on semantic grounds, Fagan proposes that although propositions may be semantic in content, they are specified syntactically. The representation of text structure through story grammars has already been discussed from the point of view of the reader. These frameworks from wnich one can view text help the reader organize and make sense of incoming information.

While identifying text structure for the purposes of identifying the function of ideas as organized by the author (Meyer, 1975; Rumelhart, 1975; Kintsch and van Dijk, 1976; Stein and Glenn, 1977) has been one procedure developed to describe text, others exist. Crothers (1972) identified concepts according to their frequency of occurrence and order, while Meyers (1975) described the relationship between principal and subordinate ideas.

These descriptions of similarity and differences in discourse, for example, between narrative and explanatory prose, has led to a more sophisticated understanding of how this variable can affect a reader's comprehension of a passage. Discourse analysis has sensitized researchers to realizing that readability of a passage is affected by far more than vocabulary rarity and density, or sentence length. Finding main idea is influenced by the logical organizational framework inherent in the passage.

The logical organizational framework inherent in the text represents the writer's thinking process as it relates to his purpose for writing. It may be that discourse structures reflect different purposes for thinking, and thus place different thinking demands upon the reader.

Vinacke (1974) differentiates between the purposes for thinking, and relates purpose to use of different processes. Reasoning processes are tied to a purpose or goal which demands a solution to a task placed upon the individual by the environment. The imagination processes, on the other hand, are relatively free from the demands of such extrinsic conditions, and are intrinsically generated. Yet both forms of processes are necessary for "the organization and reorganization of past learning in present situations" (Vinacke, 1974, p. 7), or what Vinacke labels as "thought".

The writer's control, implicit in the organization of thought in the text, and the writer's purpose, may well be the characteristics distinguishing narrative from expository writing (Peel, 1967). If the writing is bound by no particular problem, and the only practical consequence of the writing is that of affecting someone, thematic thinking will be reflected by the work. While the writer associates ideas for his reader, the control is not rigid, and almost an infinite variety of associations are possible for the reader as long as he maintains consistency and unity with the theme the author uses to control the connecting of the elements of the work. Such a form of writing would seem to be reflected by poetry or fiction, where the reader must generate much of the meaning through what Vinacke terms as intrinsic, imaginative thinking.

The dominance of imaginative thinking compared to the dominance of reasoning processes influenced by extrinsic forces, would seem to place different strategy demands upon the reader. The purpose of expository writing, according to Peel, is to explain events in order to control and manipulate the environment. The thought is therefore more controlled by the writer, for the direction of thought has to conform to a practical criterion of explaining events. The reader is forced to use more rational thought processes, and his associations would be controlled not by a theme but by practical criteria: a chain of reasoning which generates a successful action or reduces a problem to a principle which makes action possible. This action or principal might, in fact, be labelled "main idea". Explanation, in this sense, carries the purpose of practical control through the manipulation of the environment, for when an event can be explained it is theoretically, and perhaps practically, possible to control the event or make use of it in a new situation. Such a practical purpose for thinking would necessitate the dominance of what Vinacke terms as rational thought. The logical framework imposed on the text by the writer would reflect the testing of hypotheses against facts. The rules of logic and hypothesis testing, if followed by the writer, would place significant control upon the reader's freedom to make associations. He is bound by practical criteria: he is not free to create an infinite variety of associations, nor does the writer intend him to.

If the forms of discourse do place different task demands upon the reader, as Peel suggests, the reader would need to respond by using different processing strategies for different forms of discourse. It is as if the reader and writer bargain for the amount of structure each will place upon the work. In narrative writing, the intent of the writer may be to share only minimally with the reader, and allow the reader the freedom and pleasure to personally interact with the text, making limitless associations as long as they are defensible within the broad framework outlined by the writer. To give the main idea of narrative, or the theme, would demand of the reader personal associations which would generate an insight that may be very personal. Little agreement as to the theme of a narrative work may result, especially as the work becomes longer and provides the opportunity for more associations. In explanatory writing, however, the intent of the writer would seem to be one of maximally sharing the message with the reader, for the writer is intent on explaining a principle or solution. For this kind of writing, there should be a high degree of agreement among readers as to the main idea of a passage.

Ultimately, the writer controls the amount of freedom given the reader. Narrative, characterized by a writer explicitly stating his main idea, and presenting few images or associations, is considered didactic. Writers, such as Shakespeare, who provide the potential for so many associations and combinations of associations, allow the reader the pleasure of reading the work a multitude of times, each time exploring new possibilities for meaning. On the other hand, explanatory writing may contain a considerable amount of narrative or inconsequential detail. The reader reacts to this kind of writing with impatience for he expects the writer to state the point as briefly as possible.

The proficient reader learns to expect certain demands created by the discourse form. He is probably more "in tune", and is more able to adapt to the necessary limitations of the bargaining imposed by the writer. Whether the reader can, and does, match his form of reasoning to that imposed by the writer will affect not only his processing strategies but also the degree of meaning the writer and reader share.

Task Demands

Tasks demanded of the reader in experimental conditions have reflected a continuum of depth of processing. Early comprehension experiments could well be classified as non-reading experiments. They ranged from counting letters in words to inventing sentences to follow given sentences. While these studies did not adequately reflect reading, they did show that pertinent instructions prior to reading enhanced the comprehension and recall of text (Mistler-Lackman, 1974; Schallert, 1976). Zimmer (In Furniss, 1979) assesses the effects of eight orienting tasks on the short term retention of prose. These tasks were described as:

1. Surface Feature Task: subjects were uninformed of the post-test, and were asked to estimate a random number of spelling errors while reading.

2. Reading Control - Incidental: subjects, uninformed of the post-test, read as a materials validation exercise.

3. Reading Control - Intentional: subjects, informed of the post-test, read passages as carefully as possible.

4. Superordinate Question Task: subjects responded to superordinate level multiple choice questions interspersed throughout text passages.

5. Superordinate Statement Review Task: subjects used superordinate level statements following each specific statement passage, as review exercises.

6. Superordinate Organizer Task: subjects were given superordinate level statements preceding passages and were asked to use them as organizers for reading subordinate paragraphs.

7. Semantic Evaluation Task: subjects were asked to rate each superordinate level statement as to its helpfulness in understanding or organizing a preceding specific level passage.

8. Logical Evaluation Task: subjects were asked to rate superordinate level statements as to whether or not each statement was a valid conclusion of a previously read statement array.

Following task completion, a 72 item multiple choice test was administered. The test performances of the subjects suggested the possibility of a hierarchy of processing tasks, the most meaningful being number eight. These results suggest that task demands may affect encoding strategies which, in turn, affect retention, and parallel Craik and Tulving's (1975) results "which sustain the inclusion of a contextual or processing activity in future models of prose memory" (p. 4).

Implications From the Research

The overview of factors affecting the formulating of a message suggest that reader and text (writer) interactions need to be studied to determine how main idea is formulated. It also reveals that a reader's prior knowledge may affect the strategies used by the reader as well as how much information he uses from the text. Since the logical framework underlying expository and narrative passages may be different, the form of the passage may affect the strategies used by the readers. Finally, the task presented to the reader may affect his processing and retention of main idea.

To date, studies have not explored the effects of these task and form variables upon the processing of the reader. What areas have been researched will be reviewed in the next section.

Studies on Main Idea

First the studies exploring main idea as a skill will be summarized. Then, these studies examining main idea as a process of recall will be reviewed. Finally, those studies examining children's understanding of main idea will be related.

Main Idea as a Skill

While identifying the main idea of a passage has historically been regarded as a significant indication of comprehension, little research directly examining main idea can be found. What strategies children use to find main idea have not been researched, yet strategies for teaching main idea abound. More studies related to how a proficient reader understands the gist of a passage is required to ascertain which of the strategies may be most effective and when.

The past research has identified the finding of main idea as a significant comprehension skill. The development of standardized tests designed to measure comprehension skills automatically included identifying main idea. The early factor analytic studies, through factorial procedures, attempted to identify the significant factors related to comprehension. The problem with this early research is that the standardized tests were assumed to reflect a valid test of comprehension. Ipso facto, the ability to find main idea was noted as a significant factor related to comprehension (Anderson, 1949; Davis, 1944, 1968; Gans, 1940; Hall and Robinson, 1945; Holmes and Singer, 1966; Langsam, 1941; Thurstone, 1946; Vernon, 1962). The heavy emphasis on finding main idea in these tests were noted as early as 1926 by Alderman who stated that scores on the Thorndike-McCall Reading Scale (1920) could be dramatically improved by providing children with drill work on vocabulary building, retention, and selecting central thought and author's purpose. The problem with this research, it seems, is the lack of validity: what was found to compose reading comprehension were the same skills the reading tests measured. As stated by Davis (1944):

> The most important steps in a study that employs factorial procedures for the investigation of reading comprehension is the selection of the tests the scores of which are to be factored. Unless these tests provide measures of the most important mental skills that have to be performed during the process of reading, the application of the most rigorous statistical procedures cannot yield meaningful or significant results. The significance of this point can hardly be overestimated. (p. 185)

Because of his concern with the validity of the test itself, Davis (1944) had a test constructed specifically designed to measure the skills considered most important by authorities in the field.

Of the several hundred skills identified by Davis, nine categorizations emerged, one being "formulating the main thought of a passage". While Davis' test was an improvement over past examinations, little consideration seems to have been given to factors affecting main idea such as length of the passage, the difference in task demanded, or the position in which the main idea was placed. Reading tests are still based on a large number of assumptions, and their validity is still questioned. However, these factorial studies were significant in that they established that finding the main idea was a skill readers were expected to develop.

In the sixties, lists of necessary skills for effective comprehension emerged. Often these were ordered within a hierarchical taxonomy (Barrett, 1968; Cleland, 1965; Sochor, 1962; Wolf et al, 1968). Prevalent in these lists of skills are: giving a new title for a paragraph, finding the topic sentence, constructing a rebus of that paragraph, summarizing a paragraph into one's own words, and finding the main idea of the paragraph. While systematic organizations of skills resulted, these orderly presentations represented a precision beyond what might be found in the actual process (Clymer, 1968). Nevertheless, these skills were popular with teachers even though these categorizations such as Spache's (1962) often reflected three different aspects of reading: uses of comprehension, procedures for teaching comprehension, and the psychological processes involved in reading comprehension (Simons, 1971). For example, Spache (1953) listed four skills related to finding main idea: (a) underlining key words in a paragraph, (b) offering new titles for paragraphs, (c) recognizing paragraph meaning, and (d) comprehending main idea as a summation of sentences.

While they may be related to finding main idea, the first two do not deal with main idea directly. They represent a method for teaching students how to find main idea. The first two ought to be treated as strategies for finding main idea, but because of this major confusion in research, teachers sometimes assume that teaching this strategy will automatically result in students being able to find main idea. Furthermore, finding main idea is considered an end in itself rather than a means to an end. Finding main idea only aids the comprehension of the passage. These listed skills have, furthermore, led to confusion in evaluating the skill. What are commonly measured as "process skills" have not been researched adequately. The claim that they can be separated and tested has not been borne out by the latest research which describes the psychological processes.

In conclusion, the enumeration of lists of skills related to reading comprehension has done little to provide an understanding of how finding main idea relates to the comprehension processes. The skill has remained global in nature, and has been perceived as process, product, or procedure for teaching comprehension, but the relationships among the three have not been considered.

Present research has attempted to use an introspective technique to study the mental activities involved in finding main idea. These research studies represent a change in perspective from perceiving the identification of main idea as a skill or product to understanding how people process information to find main idea.

Main Idea as a Process of Recall

A series of recent studies have related to children's ability to extract the main theme of prose passages (Brown and Smiley, 1977; Brown, Smiley, Day, Townsend, and Lawton, 1977; Smiley, Oakley, Worthen, Campione, and Brown, 1977). As Brown and Smiley state:

> Extracting the main idea is clearly an essential information gathering activity, and the ability to glean the main message, to the exclusion of non-essential detail, must be a naturally occurring ability given, of course, a reasonable match between the complexity of the message and the receiver's current cognitive status. (1978, p. 106)

If effective reading involves the ability to extract the essential message and discard trivia, then insight into what effective readers regard as trivia and as important information might provide insight into the process. To date, when children were asked to recall text, they have been shown to be sensitive to the importance of text sections, and while older children recall more than younger children, children in grade three use an adult-like pattern of recall (Brown and Smiley, 1977). The metacognitive awareness of what is important, however, seems to be developmental, for different age groups of students asked to rate the importance of textual elements to the theme of the story were able to carry out the task at differing levels of complexity. College students were able to separate the units of text into the four levels already identified by other college students. Seventh graders could separate low and medium levels. Fifth graders were able to isolate only the most important units from the remaining three, but third graders made no reliable distinction between levels of importance. The conclusions of these studies suggest a developmental aspect related to finding main idea. As children mature they are better able to identify the essential organizing features and crucial elements of text.

These studies, though, are fraught with experimental design problems, and what may be reflected is a developmental change in perspective as to what is important, or the recall of actions as opposed to descriptions. Most serious, perhaps, is the assumption that recall of passages measures comprehension rather than memory, or that a literal recall of a passage represents the processing of the main idea of the passage. For example, Schmid and Kulhary (1981) in studying why organization for recall was based on theme, noted that giving the reader the task of searching for theme interfered with his recall, if he had trouble identifying the theme. Such results may be reflecting the use of different strategies and processes in recalling compared to comprehending or understanding the passage. The results of such studies on recall may not necessarily reflect the processes and strategies used in comprehending. Further research is required to determine if similar results occur when a different way of tapping comprehension is used. More insight into the coordination of perceptual recognition, comprehension, and memory (Wilkinson, 1980) is required. Tapping what the reader does and why, despite the many problems with introspection, is essential.

While the studies indicate that readers select and recall theme-relevant material (Binet and Henri in Theirman & Brewer, 1978; Korman, 1945; Christie and Schumacher, 1975; Brown and Smiley, 1977), whether they perceive what is important in the same way is yet to be determined. For example, Richart's study (1980) revealed that when a child and an adult are given the same perspective for a task such as viewing a passage from the eyes of a burglar, children and adults both choose similar ideas. This study questions the developmental nature of finding important information. It may be that children have an ability to choose what is important, but their sense of what is important is different. No study to date has interviewed children to find out what is important to them and why.

Studies on Children's Understanding of Main Idea

Experimental investigations into children's understanding of main idea have dealt with primarily the examination of children's classification of the relative importance of ideas in a passage. In all cases children listened to the passages and then were asked to do one of the following tasks:

1. recall the passage.
2. classify the information as to its importance level.
3. describe the main idea of the passage in their own words.

From this information, researchers have made conclusions regarding developmental differences in finding main idea.

Three major studies examined the incidence of main ideas in the recall protocols of children. Binet and Henri (1894) noted that when children recalled the prose passages of varying lengths to which they had listened, the important ideas were better remembered than were the less important ideas, regardless of the children's age. Korman (1945) in a similar task, concluded that ideas related to the theme of the story were more frequently recalled than were those less related. Christie and Schumacher (1975) noted that recall was better for those ideas judged theme relevant. The question of whether all children, even kindergarteners, can differentiate main ideas from details is still not answered, however. The studies used "rigged" stories and as Brown and Smiley (1977) have observed, the theme irrelevant ideas were not details of the stories, but deliberately introduced irrelevant information. To conclude, the above studies seem highly suspect.

In an endeavor to overcome this problem, Brown and Smiley (1977) used an approach adopted from Johnson (1970) in which children were asked to classify the information within a passage as to its importance level. The following procedure was used:

1. The passage was divided into units corresponding to points at which a speaker would pause.

2. Raters were told the units differed in terms of their importance to the passage, and that some units could be omitted without disturbing the essence of the passage.

3. Units were classified into four levels of structural importance.

Johnson's study noted that the higher the unit was rated, the more likely it was recalled by college students.

Brown and Smiley (1977) used the same approach to determine if these results applied to children as well. Again, in both studies the children listened to the passages and then recalled the passages. Brown and Smiley concluded that while structural ratings seemed to be an important predictor of recall, six year olds could not differentiate between the four levels of importance. While the most important ideas were recalled the best, these studies do not establish that young children can deliberately identify the main ideas of a text. Of significance is the observation that the important ideas were usually actions while the ideas of lesser importance were usually the static descriptions. It may be that memory for events and actions may be the point of significance affecting the results rather than the importance of ideas. Bartlet (1932) and Gomulicki (1956) have noted that actions are better recalled than static descriptions. It may also be that the very nature of what a child considers important may undergo developmental changes. Stein and Glenn (1978) noted that while first graders generally focus on consequences of actions, fifth graders focus on goals of the characters in the story. Whether information is considered important because of its moral value or because it serves as an organizer that facilitates the recall of text may suggest a developmental issue that requires consideration (Metamemory: Brown, 1975b; Flavell and Wellman, 1977). These studies lead to the question of whether children's sensitivity to main ideas are below the level of awareness. It may be that selective attention to important ideas occurs automatically during the comprehension process, but that the overt identification of these elements requires a more conscious evaluation of material that occurs only after children attain knowledge about their own cognitive processes.

To determine whether children were, in fact, consciously aware of the differences in the relative importance of information contained within a passage, Brown and Smiley (1977) asked students in grades 3, 5, 7 and college to perform a structural importance rating task. Their results suggested that third graders were unable to differentiate the levels of importance; fifth graders could separate the high level from the remaining three; and seventh graders could differentiate the first, the second, and the third from the fourth, but not the second from the third. The college level could differentiate all four. While this study suggests developmental changes, the conclusions of the study are suspect. Because of material complexity, the rating task was too difficult, and the units for recall were too small. Thus the question of whether children are consciously aware of differences of relative importance of information within a passage still remains unanswered.

The Relationship Between Past Research and the Present Study

The overview of the studies undertaken indicated that the research on main idea was fraught with problems. Research had been carried out with prose passages or with story passages but no study had compared the differences between the two. Neither had the effects of length on the underlying organizational structure of passages been observed. Furthermore, the studies asking subjects to distinguish levels of importance assumed that there were levels of importance contained only in the text apart from the reader. No studies had investigated the reader's personal judgement of importance or non-importance, or why he perceived information to be such. In that the formulation of a message was explained to consist of information from both reader and writer, to omit the reader invalidates the results of such studies. Lastly, studies asked children to recall passages they had listened to. The results of these studies cannot be assumed to apply to the process of reading.

The present study was designed to study the effects produced by the variables of task, idea structure, form and length. It was also designed to produce insight into the reader's processing of information to determine what the reader finds important and why, and to describe what strategies he uses to find main idea, or if these strategies change when the variables are manipulated. The results of this study produced a base upon which further research could be developed. Most significant was the results which provided insight into the meaning underlying the label "main idea". A plethora of definitions had previously confounded what was actually being researched, and whether children's definition of main idea was in harmony with researchers' definitions of main idea.

Chapter Summary

This chapter outlined salient information from past research which affected the present study of main idea. Several major factors were stressed. The first was that main idea was not contained in the text, but was a formulation produced between the writer (text) and the reader. Secondly, the reader's prior knowledge and his learning of new information from the passage affected his ability to infer meaning as well as his strategy use. Also affecting his formulation of the main idea was the logical organizational framework underlying the passage.

While these factors affected the formulation of main idea, little concern for them had been noted in past research related to main idea. A consistent definition for main idea could not be found, nor had any researcher investigated whether the children's definition of main idea matched the researcher's definitions. Past studies had not investigated the effects of form, structure, task and length variables on the productions of main idea, nor had any investigated the effects of these variables on what subjects considered to be important and non-important information. Previously, the assumption had been made that what was important could be determined without considering the reader's personal perception of importance.

The present study was designed to observe how the aforementioned variables affected the main ideas provided by subjects, but it also investigated through in-depth interviews what information children found important and why, what strategies they used, and what definitions for main idea they possessed. The next chapter will explain the design of the study, and outline the stages of the research.

CHAPTER 3

THE EXPERIMENTAL DESIGN

This chapter will describe the design of the study, and outline the procedures that were followed in determining the sample, in selecting the materials, in formulating the questions designed to test main idea, in administering the test instruments, and in scoring the test responses and categorizing the in-depth interview responses. The first section will provide an overview of the design of the study.

Overview of the Design

The study consisted of two major parts. Part one involved a statistical analysis of data designed to study how three text related factors (length, form, idea structure) and a task factor (produce, recognize) affected the subjects' formulation of the main idea. A four-way analysis of variance was used to determine the effects of the main variables and their interactions. Figure 3.1 illustrates the design of the first part of the research.

The second half of the study consisted of the analysis of the responses of thirty-two subjects who had been interviewed by the researcher. This part of the study was designed to provide insight into the subjects' conception of main idea, as well as into their use of context and strategies to find main idea. Lastly, the researcher defined the term "main idea" on the basis of the insights gained from the study.

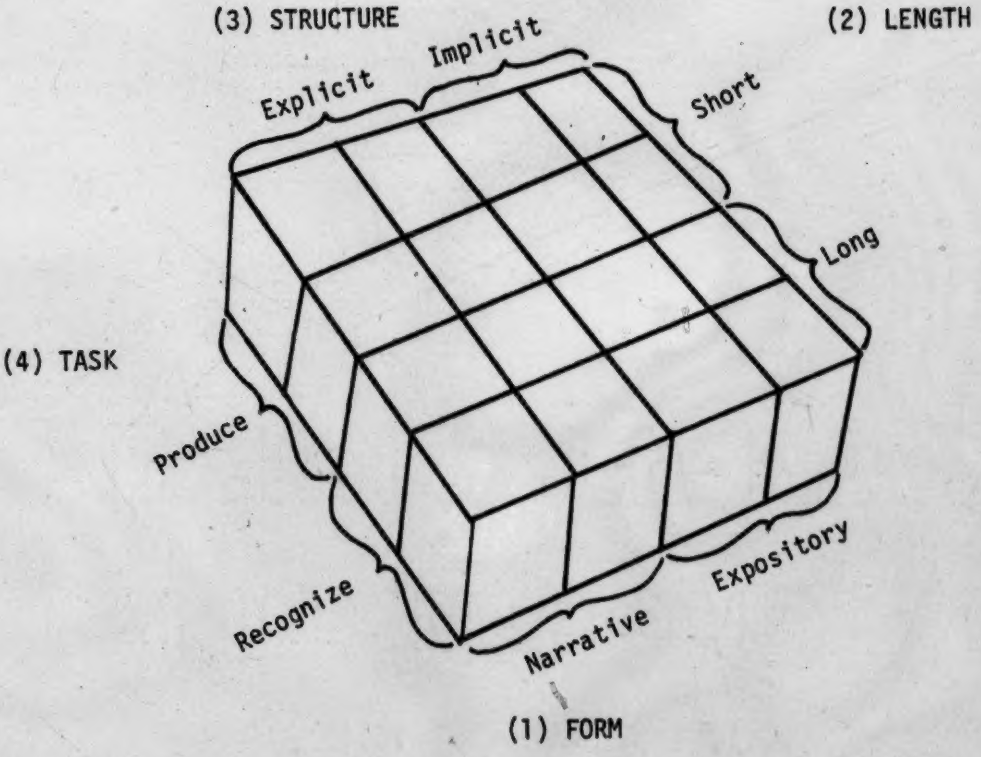

(3) STRUCTURE
Explicit
Implicit
(2) LENGTH
Short
Long
(4) TASK
Produce
Recognize
Narrative
Expository
(1) FORM

Figure 3.1

The Effects of Form, Length, Structure and Task Upon the Formulation of Main Idea.

Stages of the Study

Stage one involved the preliminary planning and piloting in order to determine the passages and the questions that would be used in the major study. Stage two involved the administration of four tests to a total of 240 grade six students. Each of the four tests was administered to 60 students. Stage three involved the in-depth interviewing of 32 grade six students who had not taken one of the tests. The passages used in the tests were the same passages used for the in-depth interviews. All student responses were recorded and later transcribed. The final stage involved the analysis of the data and the categorization of the responses received during the interviews.

Each of these stages will now be described in detail. The selection of the sample and the reasons for the selection will be explained in the next section.

The Sample

In total, a sample of 310 sixth graders was drawn from ten suburban and country schools within the County of Strathcona No. 20 and the Red Deer Public School District No. 104. Of the total sample, 38 subjects were used to pilot the passages and questions, 240 were administered the tests, and 32 were interviewed during the in-depth study.

Two school districts were selected to offset the effects which may have been generated by county-wide objectives which stress or do not stress the teaching of main idea in all of the schools within the system. The two school districts also ensured that the subject had been taught through a variety of programs from a number of prescribed Alberta series.

The schools chosen were selected because they represented different geographic and socio-economic areas served by the elementary schools in the systems. The schools were selected by the researcher upon consultation with the Red Deer Language Arts Coordinator. Two schools, one country and one urban, were used to pilot the materials in order to produce as wide a response as might be represented in the study. The six schools selected for the statistical study permitted a random sampling of subjects which served to offset, as much as possible, the effects which might have been produced by reader-related variables such as verbal and cognitive abilities, sex, attitude, and reading proficiency. The random sampling of classrooms minimized the effects of confounding variables. It provided for the controlled study of the effects of length, task, idea structure and form upon the scores achieved by the subjects.

The tests were completed by 241 students in eight classes ranging in size from 28 to 31 students. To ensure the comparison of equal samples, the researcher accepted the first 60 papers of each test administered. Because 61 students wrote the C test, the last paper in the group was ignored. Thus, 60 subjects wrote each of tests A, B, C and D, resulting in a total sample of 240 subjects.

The remaining 32 students who were interviewed in depth were selected from one country and one urban school. Only proficient and very-proficient readers were selected for the in-depth interviews. To explain what metacognitive strategies they used may have been a difficult task for grade six readers. Also, non-proficient readers might have been processing information at a letter or word level, inhibiting their attention and memory of information at the sentence and discourse levels (Craik and Lockhart, 1972).

While the statistical part of the study focused only on the answers provided by the subjects, the interviews provided information regarding the process used by subjects in order to find main idea. It was imperative that subjects who were not afraid to volunteer their ideas be chosen. Therefore, the teachers from six classrooms were asked to identify their best readers. These selections were corroborated by the reading scores achieved by the subjects on the reading section of the Canadian Test of Basic Skills, administered in May, 1982. One subject who had been selected by his teacher was not interviewed because he scored below the 50%ile on the reading test. Another student was identified and interviewed. The double check system for determining reading proficiency served to ensure that the 32 selected were deemed best on two accounts rather than merely one. Table 3.1 outlined the scores achieved by the subjects on the Canadian Test of Basic Skills.

The results of this study are limited to an insight into the work of grade six students. Sixth graders were chosen because past researchers had ascertained that while seventh graders were able to explain what strategies they used to find main idea, fourth graders could not. Grade six subjects were chosen in order to determine whether they were metacognitively aware of why the context they used was either important or non-important. Also, grade six represents the final elementary year in the students' first stage of school. What a student's conception of main idea is, and how able he is to formulate it immediately prior to entering junior high school would have implications regarding the junior high curriculum.

Table 3.1

Reading Comprehension Scores of the Subjects Chosen for the In-Depth Interviews

CANADIAN TEST OF BASIC SKILLS: COMPREHENSION

No.	Sex	Percentile Scores
1	F	80
2	F	70
3	F	70
4	M	92
5	M	98
6	M	82
7	F	55
8	F	95
9	F	90
10	F	70
11	F	64
12	F	90
13	F	86
14	M	50
15	M	97
16	M	50
17	M	50
18	F	55
19	M	70
20	F	80
21	M	55
22	M	82
23	F	64
24	M	92
25	F	86
26	F	82
27	F	86
28	M	76
29	M	86
30	M	50
31	M	64
32	F	68
	F = 17 M = 15	$\overline{X}$ = 75

Grade six students were also chosen because they have experience reading expository as well as narrative passages. Harris and Smith (1972) and Karlin (1975) noted that upper elementary students are subjected to content area reading more so than are primary students who are mostly given narrative. Grade six subjects have had practice finding main idea for narrative and expository passages.

For these reasons, and because children generally by the age of ten to twelve are capable of applying the inferential processes and abstract thought demanded by the tasks in this study (Rawson, 1976), grade six subjects were selected. Further research could administer the same tasks to subjects of different ages and grade levels to determine the developmental nature of a subject's ability to find main idea.

Test Instruments

In order to attain the information required for the statistical analysis, four separate tests were designed to provide for samples of each of the variable combinations. These tests were comprised of eight experimental passages (four for Tests A and B; four for Tests C and D). The tests will be described in detail under "Design of the Test Instrument".

For the in-depth interviews, questions were designed to tap the processing undertaken by the subjects in formulating the main idea. These questions will be outlined under the section on formulation of the questions.

Lastly, the Canadian Test of Basic Skills was used to corroborate the teachers' selections of proficient and very proficient readers.

The next section will describe what passages were selected for the study, and how they were selected. It will also discuss the construction of the questions used to elicit the students' responses to the passages.

Passages

Eight experimental passages were used to answer the research questions developed for this study. These passages were selected to represent the various combinations of the main variables, length, form, structure and task.

Four of the eight passages represented the narrative form and four represented the expository form. Two of the narrative and two of the expository articles contained a structure that explicitly stated the main idea; the remaining two samples of each form contained a structure which implicitly stated the main idea. Lastly, four of the passages were short, ranging from 111-120 words, and four were long, ranging from 600-700 words.

The passages were established at a grade 4.5-5.0 reading level according to the Dale-Chall Readability Formula. This reading level was approximately one grade below the subjects' grade level. This reading level was used to ensure that the complexity of the language patterns and vocabulary did not interfere with the processing of the subjects and confound the effects produced by variations in length, form, idea structure and task. A description of the selected passages is given in Table 3.2.

The eight passages presented information which all grade six subjects would be familiar with, in order to minimize the effects that passage unfamiliarity would have on the reader's use of background knowledge.

Table 3.2

A Description of the Experimental Passages

TITLE	FORM	STRUCTURE	LENGTH	READABILITY LEVEL GRADE
The Faithful Dog	Narrative	Implicit, Short	120 wds	4.5
Taking the Plunge		Implicit, Long	700 wds	5.0
Lily	Narrative	Explicit, Short	133 wds	5.0
Mary Jo's Responsibility		Explicit, Long	700 wds	5.0
An Interesting Story	Expository	Implicit, Short	120 wds	5.0
Keeping Cool		Implicit, Long	600 wds	4.5
Chimps and Humans	Expository	Explicit, Short	111 wds	4.5
Tricky Tongues		Explicit, Long	600 wds	4.5

"The Faithful Dog" relayed the story of a faithful dog saving a child's life. "Taking the Plunge" told the story of a young girl involved in a swimming contest. "Lily" reflected a day in the life of a young girl when everything went wrong and "Mary Jo's Responsibility" reflected the difficulties of training a puppy. Of the expository articles, "An Interesting Story" explained the origins of two words, and "Keeping Cool" explained how people found and stored ice throughout history. "Tricky Tongues" explained the many uses and shapes of animals' tongues and "Chimps and Humans" described an experiment using a chimp and a human baby. These passages were selected from twenty four passages that were piloted, and are located in Appendix A.

How familiar the subjects were with the passage information was judged on the basis of a pilot study. This process of passage selection will be outlined in the next section.

Selection of passages and formulation of questions. In order to select appropriate passages which the subjects found interesting and were able to establish the main idea for, two pilot studies were undertaken. Since the studies were also used to test the questions designed for the study, the formulation of the questions will be explained as well.

Pilot study one. Pilot study one, undertaken in October 1981, was designed to ascertain whether the narrative and the expository forms of writing affected the student's ability to find main idea, and the strategies he used.

Previous studies on main idea had omitted testing this variable. Yet, Furniss (1979) had described the different structures underlying "story narrative" and "descriptive informational" passages. Her description of the narrative story structure was similar to that of Rumelhart (1975), Thorndyke (1976), and Stein and Glen (1977). Her description of the expository emphasizes the lack of plot structure. Rather a series of attribute statements which were concrete and temporally ordered were contained in the structure. This pilot study attempted to determine whether these differences in structure affected the subject's formulation of main idea.

A further purpose of the study was to test the questions which had tentatively been devised to tap the subject's thinking during the in-depth interviews. Also the researcher wished to explore what questions might best be used to ask the student to find the main idea of the passage.

Lastly, what technique could be used to tap the subject's processing without interfering with that very process was a concern of the researcher. This pilot observed the subject's behavior when he was asked to underline the parts that were the most important to him. The underlining occurred after the subject had stated the main idea and explained what general strategy he used.

Whether grade six students could perform the tasks demanded by the study was observed. Six sixth graders who were proficient readers were chosen from two classrooms in the County of Strathcona No. 20.

Two short passages, one expository and one narrative, were used. "The Faithful Dog" contained a plot structure and implied the main idea. "Tropical Fish" explained the steps for raising fish. Each passage was rated below a grade five to six level of difficulty. They were assumed to be easy reading material for sixth grade proficient readers.

Each student was individually interviewed. Prior to the processing of the paragraphs, he was asked: "When your teacher asks you to find the main idea of a passage, what is he asking you to do?" Upon answering this question, the subject silently read the first passage and immediately wrote down the main idea. He was then asked to underline the information he found most important in formulating his answer. He was then asked to express why the information he underlined was important, and how he used the information to help him produce his answer. Next he was asked to explain why the information he did not underline was not important. The researcher was interested in this aspect of the research since other studies had ascertained that context was important and distinguished the good reader from the poor reader, but no studies had determined what part of the context was considered relevant or why. Upon completion of passage one, the subject processed passage two in the same way.

The researcher experimented with a variety of questions which had been designed to probe the subject's thinking, such as:

1. Tell me everything you can remember about how you found the main idea.

2. Why did you underline that information? How did it help you find the main idea?

3. Why wasn't this information important?

The researcher wanted to use general questions which promoted responses but did not lead the subject. The responses were recorded and transcribed.

The responses given by the students suggested that the proposed study was feasible, and that the narrative and expository forms influenced the strategies the reader used to find the main idea. The techniques of underlining important information provided a frame for the discussion of what was significant, without the discussion interfering with the subject's immediate recall of what information had been important. Even though this information may not be what he actually cued upon while reading, the subject's explanation of what he considered important after reading helped explain the basis on which he chose his answer.

The preliminary study also suggested that re-reading and reconsidering what information was important was a strategy used by subjects when they found main idea. To tap what processes were occurring only during a first reading would not have provided insight into the changing dimensions of context which occurred during and after the first reading, especially when the reader was given a multiple choice question to answer. Finally, this preliminary study indicated that grade six students were capable of explaining their reasoning to the researcher.

Further refinement was needed, however. Only two passages had been used in pilot one. The researcher needed to explore the effect produced by materials written at various grade levels, and to select the materials which seemed most interesting and successful.

Pilot study two. Pilot study two was designed to choose the eight most successful passages from twenty-four which had been selected.

It was also generated to provide information on whether the inclusion of the title with the passage affected the subject's processing. Lastly, what wording for the questions asking the subjects to find main idea best encouraged a student's responses, yet not interfering with them, needed to be ascertained.

In selecting the twenty-four passages for pilot two, the researcher conformed to the following criteria:

1. short passages were 111 to 140 words in length.
2. long passages were 400 to 700 words in length.
3. the reading levels were grade 4.5 to grade 6.0 in reading difficulty according to the Dale Chall Readability formula.
4. the topics of the passage would probably be common knowledge to most of the subjects.
5. the passages were interesting and were written by an author for a particular purpose in contrast to being written by a researcher for the purpose of an experiment.

These criteria were used as the base for selection because they presented variables which might confound the effects provided by the dependent variables in the study. Varying lengths and grade levels would allow for vocabulary and syntactical structures of various complexities which would influence the strategy use of the reader as well as his success in finding the main idea. On the other hand, passages written by the researcher may not reflect the actual process occurring when a reader reads in an everyday situation compared to an experimental situation. An attempt to balance these interacting variables was made.

Lastly the balance between familiarity with the information being presented in the passage, yet not with the passage itself needed to be maintained. The amount of context used from the text could be altered by background experience. The difference in context use could be established with a later study, if the pattern of use with familiar materials were first established. Also, the reader's strategy use might be obscured if he found the passage too difficult. On the other hand, the passages needed to be new to the reader so that his memory of a past reading did not alter his use of strategies or context. The subject might also find passages he had read before uninteresting and not be motivated to carry out the task. Whether the passage was interesting was, therefore, another criterion requiring testing.

The twenty-four passages which were selected are located in Appendix B. These passages were chosen from the Mark II SRA Reading Laboratory Kit because:

1. the passages had previously been chosen by the company to appeal to the interests of students at the Division II level, and those chosen were considered by the researcher to be the most interesting of those provided.

2. the readability of the passages and length had already been determined through the application of the Dale Chall formula.

3. the producers of the kit had selected articles from various magazines such as Ranger Rick. These were passages composed by writers with the interests of the reader in mind. They were not contrived passages constructed for the purpose of an experiment.

They therefore contained a variety of structures and vocabulary as would be found in the writing students would normally be in contact with.

4. the kit contained ample examples of both expository and narrative passages with the main idea explicitly or implicitly stated.

5. the students from both of the counties were probably not familiar with the passages since the use of kits is discouraged in both areas, but the passages were similar to materials to which the students might have been exposed.

6. the passages were recently written and related to the lives of grade six students.

Of the twenty-four passages selected, each passage type required for the main study was represented by four samples. The variation in grade level was used to determine which reading difficulty would generate the processing for the main idea without frustrating the subjects. The description of the passages which were piloted is given in Table 3.3.

Pilot study two was also used to determine the best structure for the questions which were required to tap the main idea for each passage, and for the questions which were required to prove the subject's processing of text during the in-depth interviews. While reading examinations often use a variety of questions to determine a student's ability to select main idea, the questions themselves may encourage the use of different strategies, thus producing a different processing of information. Because this study was examining

Table 3.3

A Description of the Passages Used in the Pilot Study

PASSAGE	FORM	STRUCTURE	LENGTH	GRADE
Keeping Cool	Expository	Implicit	600 wds	4.5
The Hamburger: The Dish That's Been Eaten With Relish	Expository	Implicit	700 wds	5.0
What is Lightning - Besides Scary	Expository	Implicit	500 wds	4.5
Behavior of Crows	Expository	Implicit	116 wds	5.0
Rattlesnake!	Expository	Implicit	140 wds	6.0
An Interesting Story	Expository	Implicit	120 wds	5.0
Tricky Tongues	Expository	Explicit	600 wds	4.5
Training the Senses	Expository	Explicit	700 wds	5.0
Bats	Expository	Explicit	600 wds	4.5
Mothers Don't Always Care	Expository	Explicit	120 wds	5.0
Finding Out About Words	Expository	Explicit	111 wds	4.5
Chimps and Humans	Expository	Explicit	120 wds	5.0
A Baker and His Neighbor	Narrative	Implicit	400 wds	4.5
Taking the Plunge	Narrative	Implicit	700 wds	5.0
Reindeer Winter	Narrative	Implicit	700 wds	5.0
The Faithful Dog	Narrative	Implicit	120 wds	4.5
Turtle	Narrative	Implicit	135 wds	5.0
Captured!	Narrative	Explicit	600 wds	4.5
Mary Jo's Responsibility	Narrative	Explicit	700 wds	5.0
The Fisherman and the King's Chamberlain	Narrative	Explicit	600 wds	4.5
Lily	Narrative	Explicit	133 wds	5.0
Ant	Narrative	Explicit	114 wds	4.5

the process, the question had to remain constant for the production task and for the recognition task. The pilot investigated the results produced by the use of the following stems in the multiple choice questions used in the recognition task:

1. The title that best describes the most important idea of this passage is:
2. The best title for this passage is:
3. Choose the best title:
4. This article describes:
5. This passage mainly tells that:
6. The main idea of this passage is:
7. The sentence that best tells what this passage is about is:
8. The title that best describes the main idea of this passage is:
9. A title that best describes what this passage is about is:
10. This story mainly:
11. Which sentence best describes what this story is about?
12. Which of the following titles best summarizes what this story is about?
13. The title that best describes what this story was meant to tell you is:
14. This title is meant to show you that:
15. What is the author's main purpose in writing this story?
16. What is the main idea of the story?
17. Choose the sentence from the story that best summarizes

all of the details in the story:

18. Choose the title that gives the moral of the story.

19. This fable is meant to show you that:

20. The title that would best reveal the moral of this fable would be:

Similar stems were prepared for the production questions:

1. Write a title that best describes the most important idea of this passage.

2. This article mainly tells ______________________________.

3. Write a title which best explains to the reader what this article is about.

4. What is this story all about?

5. Write a title which best describes what this story is about.

6. This article mainly tells that ________________________.

7. This passage mainly tells you that _____________________.

8. What is the best title for this passage?

9. What do you think the author was trying to tell you in this passage?

10. This passage is mainly about ____________________________.

11. The sentence which best tells what this passage is about is ____.

12. Write a title for this passage and tell how your title describes the main idea of the passage.

13. The most important statement in this paragraph is _________.

14. This passage mainly says that ______________________________.

15. Write a title that best describes what this passage is about.

16. Write a title which describes what this story is mainly about.

17. Write a title that best summarizes what this story is about.

18. What is the purpose of the title?

19. Write a title that best describes what this story was meant to tell you.

20. What is the main idea of this story?

21. Tell in your own words what you think the moral of this story is.

22. After reading the story you can conclude that ______________.

23. A title that would reveal the moral of this story would be ____.

While many of the questions were similar, the researcher was concerned that one word could change the intent of the question as it was interpreted by the reader. Also many of the questions were designed to observe the effects of using the title with the passage, for some of the titles reflected the main idea of the passage, and might have affected the use of different strategies just as varying the questions might have.

The designated question was then placed under the appropriate passage. The passages were arranged so that four passages were placed in each packet. Each packet contained two narrative and two expository passages, two implicit and two explicit main ideas, two long and two short passages. In total, four alternate questions were asked per passage, and each subject produced two answers and recognized two answers.

The packets were distributed to thirty-two grade six students in one classroom in the County of Strathcona No. 20. The class represented a cross-section of good, average, and poor readers. The students were directed by the teacher to provide the best answer they could, and to star which long passage and which short passage they found to be the most interesting. They were also told to write a note stating they were familiar with the passage, if they had read it previously. Each teacher was asked to time the student who required the most time to complete the task.

The responses to the passages are listed in Appendix B. These responses were compared for each passage and across passages. In order to determine the acceptability of the answer, criteria were generated to award points for the answers. Table 3.4 outlines these criteria.

The results of the second pilot study revealed that asking for the passage title as an indication of the subject's grasping of main idea was ineffective in the production task, especially, for it allowed too great a range in the reader's interpretation of the task. Some readers produced a key subject but others produced the generalized statement about the subject. Still other subjects produced both subject and the generalized statement made. Because such a question did not limit the task sufficiently, a decision not to use it was made by the researcher.

Likewise, the questions requiring a summary of the passages encouraged readers to provide a listing of the details instead of

Table 3.4

Criteria for Assessing the Correctness of Answers

CRITERIA DESIGNATION		CRITERIA	POINTS AWARDED
A.	1.	Answer accounts for all of the context.	3
	2.	Answer produces the key subject of the passage.	
	3.	Answer produces one general point about the subject that covers all other details provided in the passage.	
B.	1.	Answer accounts for all of the context.	2
	2.	The key subject is stated very generally and/or the general point about the subject is very general so that the answer could include many articles besides this one.	
C.	1.	Answer accounts for part of the context.	1
	2.	The key subject is stated but the general statement is too specific OR The subject is too specific but the general statement covers the details OR The subject and general point account for some of the details but more than one OR Either the subject or the general point is identified.	
D.	1.	The answer contradicts all or part of the context OR The answer is an inference based on the subject's background knowledge but not substantiated by the information in the context OR The answer is a single detail from the passage.	0

a stating of the generalized idea. Again the question was discarded because it did not specify the task clearly enough. A decision not to use questions asking for the most important statement in the passage was based upon the ambiguous meaning of important. Because past research has not ascertained what information a grade six student considers important information, this question form was also omitted.

The pilot study also revealed that some subjects used titles, but others did not. In that the title did alter the responses made by some of the subjects, depending on the amount of information given in the title, it seemed plausible that titles also affected strategy use as well as contextual use. Therefore titles of the passages were omitted.

Finally, the pilot ascertained that subjects required approximately forty-five minutes at most to complete the test upon which the statistical portion of the study would be based.

Several decisions arose from the pilot studies and preliminary analysis. These will be outlined in the next section.

Decisions arising out of the pilot studies. On the basis of student interest, comparable grade level and length, and success in responding to the task, eight passages were selected. The passages chosen were: "The Faithful Dog", "Taking the Plunge", "Lily", "Mary Jo's Responsibility", "An Interesting Story", "Keeping Cool", "Chimps and Humans" and "Tricky Tongues". These passages were all assessed to be at a grade 4.5 to 5.0 grade level of reading difficulty.

Passage titles were omitted for the main study. Sometimes, the title succinctly summarized the details of the passage, and thus would permit the reader to merely recall the title without having to produce the main idea by synthesizing the passage. Also, only one question was used to tap the main idea generated by the subject, whether he selected or produced the answer. The question stem "In this passage the author mainly tells you that __________________" necessitated the use of context to synthesize the meaning, and forced the reader to produce a subject and a generalized statement for his main idea, unless he ignored the syntactical restriction produced by the word, *that*. Also this stem did not use the label *main idea* but asked the subject to tell what the passage was mainly about. The one question specified the task for the reader, and provided for a comparison of the responses for the production and selection tasks. It also provided for the comparison across changes in form, structure, and length.

On the basis of the results from the pilot, the researcher also decided to create four forms of the test, so that an adequate number of responses would be generated per each combination of form, structure, length, and task. Four of the passages were used for Tests A and B while the other four were used in Tests C and D. These tests and their passages will be described in more detail in the next section on instrument design.

Furthermore, in order to assess the correctness of the answers for the questions which were piloted, a set of criteria were produced. These criteria were then used to design the multiple choice questions used in the statistical study so that a relative value of the answers could be ascertained. Also the representation of values were the same for both multiple choice and production questions, providing for a valid comparison of scores required in the statistical analysis.

The pilots also provided useful information regarding the time required for the in-depth interviews and the questions. Two interview sessions would occur with each subject. During each interview the subject would process one long and one short passage. The probe questions were modified as were the instructions given to the subject. These questions will be outlined in the next section as will be the design of the tests.

Design of the Test Instruments

Four tests were used in order to generate the information required for the statistical analysis, and a set of general questions was designed to probe the reader's thinking during the in-depth interviewing. These two instruments will be described in detail in this section.

Tests. As previously stated, four separate tests were designed to provide samples of each of the variable combinations. Each of the tests contained four passages. Two were short and two were long; two were narrative and two were expository; two had the main idea implied while two explicitly stated the main idea. Each subject wrote only one test. He produced the main idea for two passages and recognized the idea for two.

In order to manipulate the recognize/produce variable, Tests A and B contained the same passages, but the students writing Test B recognized the main idea for the two passages that the students writing Test A produced. Likewise, the writers of Test B produced answers for those passages the Test A writers recognized. A description of each test and the task required is presented in Table 3.6 on page 76. A sample of each test is located in Appendix C.

Two questions were constructed for each passage, one for the recognition task and one for the production task. The multiple choice question provided a choice of four options to the reader. Each option represented a variation in the degree of acceptability as a main idea. These options were designed according to the criteria set out and described during the second pilot study. One option (designated A) accounted for all of the context in the passage, produced the key subject, and made a statement about the subject that covered all of the details provided in the passage. A second option (B) accounted for all of the context, but produced the key subject very generally and/or made a very general statement about the subject that could apply to many articles including the one presented. A third option (C) accounted for only part of the context in that the key subject was missing or too specific, and/or the general statement was missing or too specific, covering only some of the details provided in the passage. Option D presented faulty information conflicting with the details in the passage, and contradicted part or all of the context, or presented an inference that might be based on the subject's background knowledge but could not be substantiated by the information given in the context. The multiple choice question designed for each passage is stated and the option designation of each choice is given in Table 3.5.

For the production task, only one question was used for all of the passages. This statement was: "The author mainly tells you that _____ ____________________________________."

The students writing Test A recognized the main idea by answering

Table 3.5

Multiple Choice Questions Designed to Measure the Selection of Main Idea for a Passage

PASSAGE	QUESTION	OPTION DESIGNATION
The Faithful Dog	In this passage the author mainly tells you that:	
	a. dogs are loyal and faithful friends	A
	b. dogs are strong and protective	B
	c. man's senses are not as developed as dog's senses	C
	d. wolves are very dangerous playmates	D
Taking the Plunge	In this passage the author mainly tells you that:	
	a. swimming can be a dangerous sport	C
	b. acceptance by others may depend on how well you perform	A
	c. taking a chance can be worthwhile	B
	d. Marti was a better swimmer than Betsy	D
Lily	In this passage the author mainly tells you that:	
	a. everything had seemed to go wrong this day	A
	b. Lily closed her eyes for a moment and thought about her morning	C
	c. going to school on Mondays is particularly hectic	D
	d. haste makes waste	B
Mary Jo's Responsibility	In this passage the author mainly tells you that:	
	a. parents sometimes make unreasonable demands	D
	b. everyone has some kind of responsibility	B
	c. a good dog owner must take responsibility for his pet	A
	d. raising a puppy isn't easy	C

An Interesting Story	In this passage the author mainly tells you that:	
	a. words always have complicated origins	D
	b. words are difficult to understand	B
	c. spoonerisms were named after Spooner who always mixed up his words	C
	d. nearly every word has a story behind it	A
Keeping Cool	In this passage the author mainly tells you that:	
	a. there are many ways to keep drinks cool	B
	b. throughout history people have tried to find ways to save ice through the summer	A
	c. the first icehouses were created in Canada	D
	d. on a hot day a cool drink is very refreshing	C
Chimps and Humans	In this passage the author mainly tells you that:	
	a. baby chimps learn faster than humans do	B
	b. human babies learn faster than chimps do	C
	c. chimps and humans grow and learn in the same way	D
	d. chimps and humans grow and learn in different ways	A
Tricky Tongues	In this passage the author mainly tells you that:	
	a. your tongue is very important	B
	b. animals' tongues are designed to perform in special ways	A
	c. most animals tongues are fastened at the back of the mouth	D
	d. tongues may be responsible for an animal's death	C

a multiple choice question for passages one and three. They produced the main idea for passages two and four. Those writing Test C processed the passages in the same order. With Tests B and D, the opposite order was followed.

Interview Questions. The following questions were designed as general questions which the researcher used to probe the thinking of the subjects during the in-depth interviews. Prior to the reading of any passages, the researcher asked question 1, or one of its variations when the subject was not certain what he was being asked:

1. If your teacher asked you to find the main idea of a passage, what is she asking you to do?

    a. If your teacher gives you an article and asks you to find the main idea, what is she asking you to do?

    b. What do you think you would have to do to find the main idea?

2. Can you give me any information about any techniques that you have or any strategies that you use to help you find the main idea?

    a. What do you do when you try to find the main idea? How do you find it?

    b. What things do you do as a reader to help you find the main idea?

The next set of questions was designed to prove the reader's thinking after he had selected or produced the main idea for the passage:

1. Tell me everything you can remember about how you found

the main idea.

a. Tell me how you went about finding the main idea. What did you do?

b. Tell me everything about how you went about finding that answer.

2. Look at the parts you underlined and tell me why each idea you underlined was so important for you as you read.

a. How did that information help you?

b. Why was that information important for you?

c. How did you use that information to help you find the main idea?

d. Did that part relate in any way to the other information you found important?

3. Why didn't you find ____________________ important?

4. Tell me which words were most important in helping you find the main idea.

a. How were they important?

b. How did you use them?

c. Why was the word such a key word for you?

5. Was there anything else that helped you find the main idea? How did it help?

Administration of the Test Instruments

The Canadian Test of Basic Skills. Form 3, Level 12 was administered to all grade six students in the County of Strathcona No. 20 during May, 1982. Since only County of Strathcona students were given the in-depth interviews, the reading scores of this test were used to corroborate the teachers' selection of proficient and very proficient readers.

Tests. The four major tests designed for the statistical study were administered to a total of 240 students from eight classrooms. The system for selecting which tests would be written by each subject is outlined in Table 3.6. Each test was administered to two classrooms, and produced a total of 960 samples which could be used in the statistical analysis. The smallest number of passages for statistical analysis was 60 per cell, while the largest number of passages per cell was 480 passages.

The students were given as much time as they required to complete the task. Directions to the teacher and student were placed on the title page of the test. Directions to the teacher read:

> "Please allow each student as much time as is necessary to complete the test."

Directions to the student read:

> "There are 4 passages. Please read each passage carefully. After you read the passage, give the best answer that you can to the question asked."

Each passage was clearly marked 1, 2, 3, 4 and each question number agreed with the passage number: 1, 2, 3, 4. Each passage began on a new page.

All tests were administered in the morning of June 7, 1982 during the Language Arts class. Teachers collected the test packets and returned them to the researcher.

In-Depth Interview Schedule. The in-depth interviews were conducted by the researcher during the first two weeks in June of 1982. Eight of the sixteen students from one school processed the narrative passages,

Table 3.6

A Description of the Tests and the Tasks Completed by the Subjects

	PASSAGE	TASK	CLASS	STUDENT NUMBER	NUMBER OF PASSAGES
Test 1	1 Narrative, Implicit, Short	Recognize	1, 2	60	240
	2 Narrative, Explicit, Long	Produce			
	3 Expository, Implicit, Long	Recognize			
	4 Expository, Explicit, Short	Produce			
Test 2	1 Narrative, Implicit, Short	Produce	3, 4	60	240
	2 Narrative, Explicit, Long	Recognize			
	3 Expository, Implicit, Long	Produce			
	4 Expository, Explicit, Short	Recognize			
Test 3	5 Narrative, Explicit, Short	Recognize	5, 6	60	240
	6 Narrative, Implicit, Long	Produce			
	7 Expository, Explicit, Long	Recognize			
	8 Expository, Implicit, Short	Produce			
Test 4	5 Narrative, Explicit, Short	Produce	7, 8	60	240
	6 Narrative, Implicit, Long	Recognize			
	7 Expository, Explicit, Long	Produce			
	8 Expository, Implicit, Short	Recognize			
TOTAL				240	960

"The Faithful Dog" and "Mary Jo's Responsibility" during the first session, while the other eight processed the expositional articles "Chimps and Humans" and "Keeping Cool". The first eight students from the second school interpreted "Tricky Tongues" and "An Interesting Story" during the first interview, and "Lily" and "Taking the Plunge" during the second interview. The second eight interpreted the passages in the opposite order. The system for presenting the passages during the interviews is described in Table 3.7. While the order is described for only the first sixteen subjects, the same order of presentation was used with the second sixteen. In total, each subject processed two narrative and two expository passages. One narrative and one expository passage explicitly stated the main idea, while the remaining two implied the main idea. Two were short and two were long. These passages were the exact passages used for the tests.

Each passage was typed on 8½ X 11 inch white paper. The appropriate question (either the multiple choice or the production question) was typed at the end of the passage.

During the first interview the researcher introduced herself and explained the purpose of the study. The subject was told that he might find the task difficult because he probably never thought about how he found an answer before. He was told that questions would be asked to help him recall what he did and why, and that his answers would be recorded for the researcher to recall his answers at a later time. He was also told to ask questions if he did not understand the task, and to tell the researcher if he had encountered the passage previously.

Prior to the reading of any passages, the subject was asked two general questions:

Table 3.7

The System for Presenting Passages to Subjects
During the In-Depth Interviews

STUDENT	PASSAGE	TASK	DAY
1, 5, 9, 13	Narrative, Implicit, Short	Recognize	1
	Narrative, Explicit, Long	Produce	1
	Expository, Implicit, Long	Recognize	2
	Expository, Explicit, Short	Produce	2
2, 6, 10, 14	Narrative, Explicit, Long	Produce	1
	Narrative, Implicit, Short	Recognize	1
	Expository, Explicit, Short	Produce	2
	Expository, Implicit, Long	Recognize	2
3, 7, 11, 15	Narrative, Implicit, Short	Produce	1
	Narrative, Explicit, Long	Recognize	1
	Expository, Implicit, Long	Produce	2
	Expository, Explicit, Short	Recognize	2
4, 8, 12, 16	Narrative, Explicit, Long	Recognize	1
	Narrative, Implicit, Short	Produce	1
	Expository, Explicit, Short	Recognize	2
	Expository, Implicit, Long	Produce	2

1. If your teacher asks you to find the main idea of a passage, what is she asking you to do?

2. Can you give me any information about any techniques or strategies that you use to help you find the main idea? Is there anything else?

Then the subject was given directions orally prior to the reading of each passage. He was told:

> "Name", I would like you to read this passage silently. When you finish, please answer the question stated at the end of the passage. Then I will ask you to tell me everything you can recall about how you found your answer. Is that clear?"

When the subject completed the question, he was told:

> "Now tell me everything you can remember about how you found your answer."

He was encouraged by asking "Is there anything else?" He was then given his second task through the following directions:

> "Name", I would like you to underline all of the ideas in the passage that seemed really important to you as you were reading the passage.

When the subject completed this task he was asked a series of questions:

1. Tell me why that idea you underlined was so important to you as you were reading the passage.

2. How did that information help you?

3. Why was that information important?

4. How did you use that information to help you find the main idea?

5. Did that part relate in any way to the other information you found important?

6. Why didn't you find ____________ important?

After this probing, the subject was then asked to circle the words he thought were key words which helped him ascertain the main idea. After he circled the words, he was asked:

1. Explain how you used these key words to determine the main idea.

2. You circled __________. Why was that such a key word for you?

Occasionally, the researcher attempted to help the reader extend his explanations when they were unclear through a series of general questions which encouraged further explanation but did not influence his answer. For example, subject two defined main idea as: "It's the first line." The researcher then proceeded in the following way:

R: Okay, but would she (teacher) be asking you to find the first line?

S: No, not really. Finding the main idea would be like what the story is about.

R: So why did you tell me it was the first line?

S: Well, the first line usually tells you what the story is about, usually.

R: Does it always?

S: No.

R: No? What do you do if it isn't the first line?

S: You just skim through until you find it.

R: I see. Well, what do you do when you try to find the main idea? How do you find it?

After the processing for that passage had been completed, the subject was asked:

> "Tell me again, generally, how you went about finding the main idea. Was there anything else?"

The same procedure was used with all four passages.

At the end of the second interview the subjects were asked the following questions:

1. Did you find the passages interesting?

2. Did you find any passage(s) more difficult than the others? Which one(s)? Why?

3. Do you read for main idea when you read for your own purposes or only when someone tells you to?

4. Are there any other strategies for finding main idea that you use?

Data Analysis

The analysis of the data occurred in two stages. Stage one involved the marking of the four tests and the analyzing of the scores through a four-way analysis of variance. The second stage involved the categorizing of the responses produced by the subjects during the in-depth interviews. The procedure for marking the tests and compiling the data for the statistical analysis will be described first.

Procedures for Marking the Tests

Using the predetermined marking scale for the multiple choice answers, the researcher scored and recorded the values attained by the subject on each passage for the recognition task. These scores were placed in columns so that a summary sheet of information was provided (see Figure 3.2). Next, all answers provided by the subjects for the production task were transferred to white slips of paper, approximately 8½" X 3". This slip provided the subject's identification number, what test he wrote, and what passage his answer referred to. It also gave the length of the passage. An example of this slip is provided in Figure 3.3. All answers to the same passage were then compiled into one group.

Each group was then classified into four groups representing a score of 3, 2, 1, or 0, three being the highest possible score. Three markers plus the researcher classified the cards according to the criteria given. The criteria were the same as that used for the multiple choice questions and can be found in Table 3.4 on page 66.

After each marker categorized the answers, these marks were recorded by the researcher. Any answers which produced disagreement were discussed by the group. In most cases, the group agreed upon what the appropriate mark for the answer would be. Those answers which did not produce complete agreement were recorded as a disagreement. The Arrington (1932) formula for determining the rate of agreement was used to assess the degree of inter-judge agreement. The number of scores agreed upon by the committee and the researcher (double agreement) were divided by this total plus the disagreements:

$$\frac{2 \text{ X agreements}}{2 \text{ X agreements} + \text{disagreements}}$$

This formula was used to determine the rate of interjudge agreements for every story. The following results were obtained:

"The Faithful Dog" : .9920

		RECOGNITION		PRODUCTION	
SUBJECT	TEST	1	3	2	4

Figure 3.2

The Summary Sheet of Scores for Tests A, B, C, D

Student Identification Number: _____

Test: ______ Passage Number: _____

Length of Passage: _____

Main Idea: ____

____

Figure 3.3

The Compilation Sheet for Production Answers

"Lily"	.9920
"Mary Jo's Responsibility"	1.000
"Taking the Plunge"	.9920
"Tricky Tongues"	.9920
"Keeping Cool"	1.000
"Chimps and Humans"	.9920
"An Interesting Story"	1.000

Two passages received considerable discussion between the members of the panel and the researcher. With "Tricky Tongues" a decision had to be made as to whether a commonly given answer "Tongues are important" rated as a 2 for a general answer or whether it rated as a 1 because the statement about the topic was too specific. This answer was finally designated as a 1 by the committee and researcher because the team decided that the article dealt with more than the importance of tongues and therefore the answer was too specific.

A second major decision occurred with the passage "Lily". The team had to decide whether "Lily was having a bad day" rated a mark of 2 or 3 in comparison to "Lily was having a bad morning". In that the article only spoke of the morning, those that wrote "Lily was having a bad day" were given a rating of 2 because their answers were deemed to be too general. This decision was made despite the fact that "Lily was having a bad day" was awarded a 3 in the multiple choice section. The researcher felt that with the multiple choice question, this answer was the best choice of the responses given and even though it may not have adequately stated the main idea, it was the best option the reader had.

Examples of these answers that rated a 3, 2, 1 and 0 are outlined below and the reasoning for the rating is explained:

"Keeping Cool"

Rating: 3 "People have invented many ways to get ice through the ages for hot days."

This answer was given a score of three because it:

1. accounted for all of the context of the passage.
2. produced the key subject of the passage.
3. produced one general point about the subject that covered all of the details in the passage.

Rating: 2 "People got ice in many different ways."
"Ice was very important to people for many reasons."

These answers were given a two because:

1. the key subject is stated but the statement about the subject is stated too generally.
2. these answers could apply to many articles, not just this one.

Rating: 1 "People used to collect ice for cooling drinks."
"Ice can be used for many different things."

Both of these answers accounted for only some of the details in the passage. The second answer did not include the need to invent ways of keeping ice. The first related collecting ice for only cooling drinks, while other reasons were noted in the passage. These answers received a rating of one because:

1. the subject is stated but the general point is too specific.

2. it accounts for only part of the context.

Rating: 0 "How George Washington started ice houses."
"Tropical countries are very hot and you have to work all day."

Statement one received a rating of zero because it stated only one detail from the passage, thus no summarizing or generalizing occurred. This detail was a minor detail used as an example. The second answer rated zero because it contradicted the passage and ignored the information given in the context.

Once the answers had been given scores, they were transferred to the summary sheet in a form ready for statistical analysis.

Statistical Analysis

All programs used for statistical analysis of the data were obtained through the Department of Educational Research Services, Faculty of Education, University of Alberta, Edmonton, Alberta. The program specific to each area of enquiry will be discussed within the relevant section in Chapter 4.

Procedures for Analyzing the In-Depth Interviews

A categorization of answers occurred in five major areas: the meaning of main idea, the strategies used, the reasons for contextual use and non-use, and the key words used by the reader to find main idea.

The researcher first separated each of the students' responses into these five categories, and identified each example by student identification number and passage. Then the examples in each major area were classified on the basis of common answers. The categories that emerged were then reported and examples were provided. A description of these results will be given in Chapter 5.

Finally, on the basis of these answers, a definition of main idea was formulated.

Chapter Summary

This chapter outlined the experimental design of the study. The two major aspects of the study, the statistical analysis and the in-depth interviews, were described in detail. The selection of the passages and the formulation of the questions were described as was the major test instruments used. Four variables (length, idea, form and task) were manipulated and a total of 960 sample passages were created through the testing of 240 students from two school districts. Interviews with 32 students were used to generate information about how proficient and very proficient readers found main idea. Finally the procedures used to analyze the data were outlined.

The next chapter discusses the findings and the results of the statistical analysis.

CHAPTER 4

FINDINGS: STATISTICAL ANALYSIS

This chapter will describe the first five areas of enquiry comprising the study. Then, for each area the purpose of the study, the procedures undertaken, and the findings and results related to the area will be discussed.

Areas of Enquiry

The first five areas of enquiry provided insight into the effects of form, task, structure and length of the passage upon the reader's performance. The five areas were:

1. the effect of short passage length compared to long passage length.

2. the effect of the main idea being explicitly stated compared to implied.

3. the effect of the task requiring production compared to the selection of main idea.

4. the effect of narrative form compared to expository form.

5. the effect of the relationships between form, idea, length and task.

The observations related to these areas of enquiry were gained through a four-way analysis of variance. The next section of this chapter will provide a general overview of the results of the analysis.

An Explanation of Variance

Table 4.1 presents an overview of the results attained from

Table 4.1

Analysis of Variance

SOURCE OF VARIATION	DF	MEAN SQUARE	F	SIGNIFICANCE OF F
Length	1	2.10	2.96	0.09
Idea	1	4.40	6.18	0.01*
Form	1	4.96	6.97	0.01*
Task	1	175.96	247.24	0.00*
Length X Idea	1	1.75	2.46	0.18
Length X Form	1	0.38	0.53	0.47
Length X Task	1	23.75	33.37	0.00*
Idea X Form	1	19.55	27.47	0.00*
Idea X Task	1	11.93	16.76	0.00*
Form X Task	1	.78	1.07	0.30
Length X Idea X Form	1	11.05	15.53	0.00*
Length X Idea X Task	1	0.05	0.07	0.79
Length X Form X Task	1	0.08	0.12	0.73
Idea X Form X Task	1	0.18	0.25	0.62
Length X Idea X Form X Task	1	0.00	0.00	0.97
Within Cell	944	0.712		
Total	959	0.968		

*$p \leq .05$

the four-way analysis of variance. Significant effects were found due to the main variables: ideas [$F\ (1,4) = 6.18$, $p \leq .05$], form [$F\ (1,4) = 6.97$, $p \leq .05$] and task [$F\ (1,4) = 247.24$ $p \leq .05$]. Three two-way interactions were found to be significant: length by task [$F\ (1,6) = 33.37$ $p \leq .05$], idea by form [$F\ (1,6) = 27.41$ $p \leq .05$], and idea by task [$F\ (1,6) = 16.76$ $p \leq .05$]. One three-way interaction was significant: length by idea by form [$F\ (1,4) = 15.53$ $p \leq .05$]. The four-way interaction was not significant.

An explanation of the reasons for the variance in scores is presented for the three-way interaction first. Table 4.2 presents the means of the total scores achieved by the subjects when they processed long explicit narrative, long implicit narrative, short explicit narrative, and short implicit narrative. Table 4.3 presents the means of the total scores achieved when the subjects processed long explicit expository, long implicit expository, short explicit expository and short implicit expository. A comparison of the means reveals that the short implicitly stated expository passage yielded a higher mean score than did the short implicitly stated narrative passage.

Figure 4.1 illustrates the effects produced by the interactions. For the short passages, the mean of the scores for the explicitly stated narrative ($\overline{X} = 2.2$) was higher than the mean for the implicitly stated narrative ($\overline{X} = 1.67$). However, the mean for the explicitly stated exposition ($\overline{X} = 1.90$) was lower than the mean for the implicitly stated exposition ($\overline{X} = 2.35$). The long passages did not produce the same effect. The mean of the scores for the explicitly

Table 4.2

Narration: A Comparison of Means for Interactions Among Length, Idea and Form

	IDEA		S
LENGTH	EXPLICIT	IMPLICIT	
Short	2.22	1.67	0.00
Long	2.03	1.74	

Table 4.3

Exposition: A Comparison of Means for Interactions Among Length, Idea and Form

	IDEA		S
LENGTH	EXPLICIT	IMPLICIT	
Short	1.90	2.35	0.00
Long	2.07	1.92	

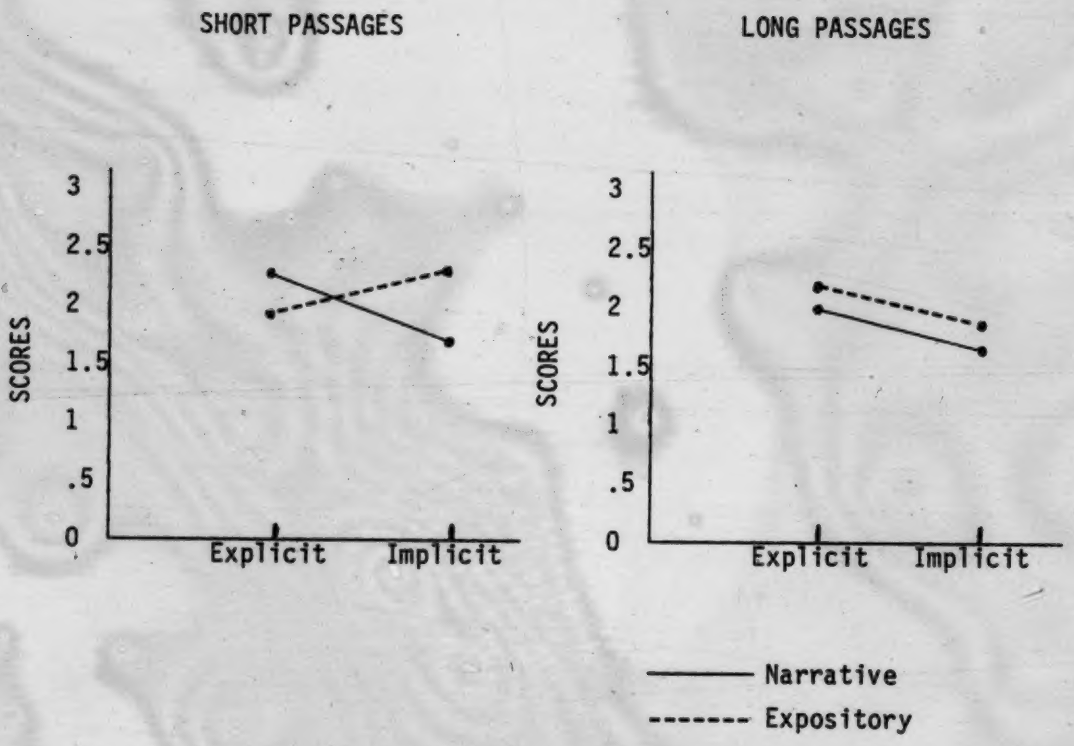


Figure 4.1

A Comparison of the Effects Produced by the Interaction Between Length, Idea, and Form stated narrative ($\overline{X}$ = 2.03) was higher than the mean for the implicitly stated narrative ($\overline{X}$ = 1.74). The mean for the explicitly stated exposition ($\overline{X}$ = 2.07) was higher than the mean for the implicitly stated exposition ($\overline{X}$ = 1.92). The variation is being caused by the short implicit passages.

The subjects found the short implicit narrative more difficult to process than the short implicit exposition. While it might be expected that the narrative would be more difficult, such a variation produced by the two forms was not expected. For the long passages, the subjects found exposition easier to process, but also found the implicit more difficult. For the short passages, the subjects found the implicit more difficult with the narrative, but easier with the expository. An examination of the short implicit expository passage, "An Interesting Story", reveals that the passage demands a simple categorization process by the reader. The first half of the passage explains the word "breakfast" and the second half explains the word "spoonerism". Subjects categorized these two words easily into the category "words" and produced the main idea. The categorization was also noted during the in-depth interviews undertaken with the thirty-two students.

Of further interest is that for the short passages, subjects achieved slightly better on the narrative than on the expository but not so with the long passages. Again, an examination of this short explicit expository structure yielded a similar internal structure to that contained in "An Interesting Story". The in-depth interviews provided insight in that the subjects used a similar categorization structure to that used with "An Interesting Story". This internal structure variable may have affected the results.

While the results of this research suggest that subjects find the processing of short implicit expository articles easier than the processing of short explicit expository articles, further research is required in order to substantiate this conclusion. The comparison between short implicit expository and short explicit expository involved only one example of each combination. A further study should now examine the question of the effects of implicitly and explicitly stating main idea on short expository passages. The effects of structures upon the reasoning strategies used should also be examined.

The collapsing of the information on the effects of short and long length upon the idea and form of the passage yields the summary given by the two-way interaction between idea and form. Table 4.4 presents the means of the total scores achieved by the subjects when length was not taken into consideration.

Table 4.4

A Comparison of the Means Between the

Idea and Form Interactions

	FORM		S
IDEA	NARRATIVE	EXPOSITORY	
Explicit	2.13	1.98	0.00
Implicit	1.70	2.13	

The aberration noted for the expository means, and reflected in Figure 4.2 has already been explained in the discussion regarding the three-way interaction. The source of the variation was produced by the short, implicit expository passage.

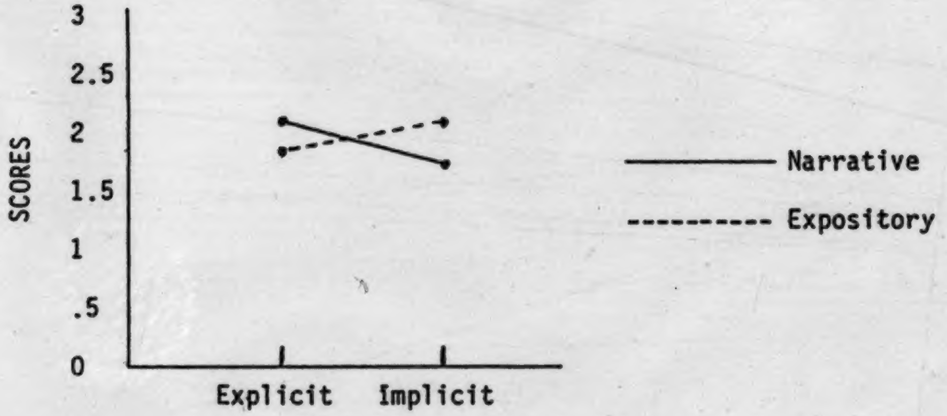


Figure 4.2

The Interaction Between Idea and Form

Two other two-way interactions were significant: that between idea and task, and length and task. The means of the scores attained by the subjects when they produced the main idea for explicit and implicit passages are outlined in Table 4.5.

Table 4.5

A Comparison of Means Between Idea and Task Interactions

	TASK		S
IDEA	PRODUCE	RECOGNIZE	
Explicit	1.74	2.37	0.00
Implicit	1.38	2.46	

A comparison of the means revealed that subjects attained a higher mean score when recognizing answers (E = 2.37, I = 2.46) than when producing answers (E = 1.74, I = 1.38). Furthermore, when producing an answer, subjects found producing an answer for a passage containing an implicitly stated idea more difficult than for one with an explicitly stated main idea. This difference in mean scores (1.74, 1.38) while small, does not reflect the gain in mean score noted with the recognitions (2.37, 2.46). Subjects, when recognizing answers, were more able to recognize the answers for implicitly stated passages, than they were for explicitly stated passages. Figure 4.3 illustrates the differences in means produced by the idea, task variables.

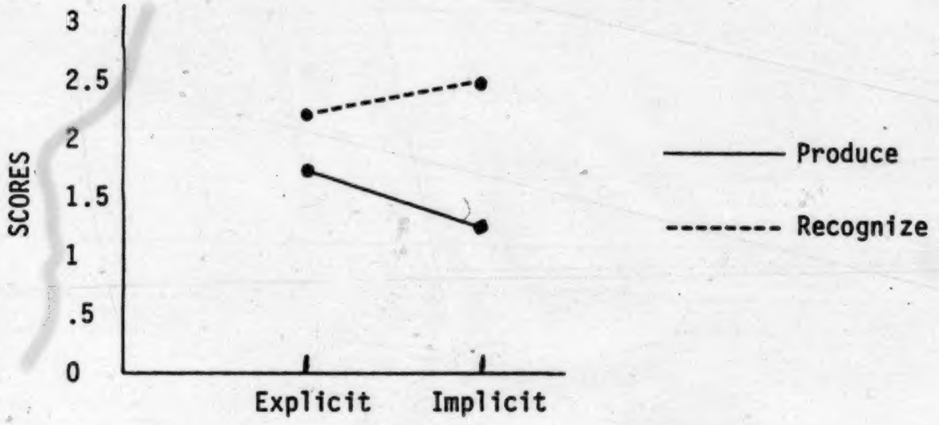


Figure 4.3

The Interaction Between Task and Idea

Why implicit passages are more easily recognized may be determined by examining the remaining significant two-way interaction between length and task.

Table 4.6 presents the means of the scores attained by the subjects when they produced the main idea for long and for short passages and when they recognized the main idea for long and for short passages.

Table 4.6

A Comparison of the Means Between

Length and Task Interactions

	TASK		S
LENGTH	PRODUCE	RECOGNIZE	
Short	1.76	2.30	0.00
Long	1.35	2.52	

While the means for recognizing are higher than for producing, the mean of the scores for recognizing long passages (2.52) is higher than the mean for recognizing short passages (2.30). On the other hand, the mean for producing long passages (1.35) is lower than the mean for producing short passages (1.35, 1.76). Figure 4.4 illustrates the differences in means produced by the length and task interactions.

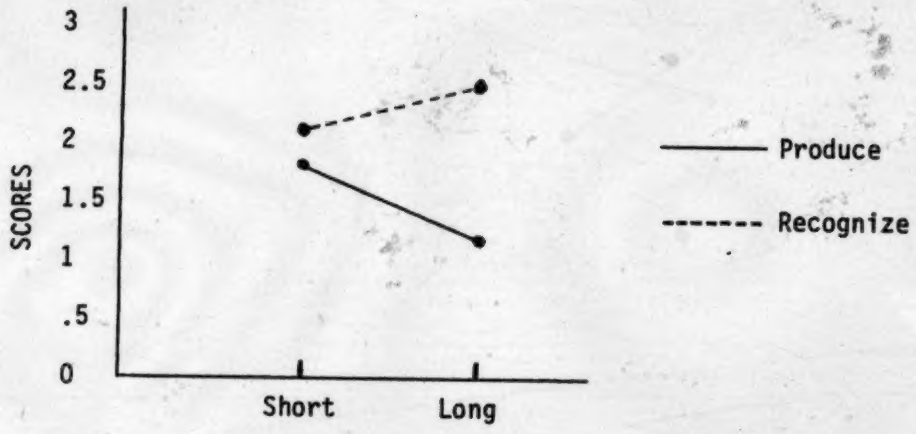


Figure 4.4

The Interaction Between Task and Length

Generally, the subjects found recognizing main ideas easier than producing main idea. While the subjects were less able to produce the main idea for long passages, they were more able to recognize the main idea for the long passages.

This study revealed that three main effects were significant: idea, form, and task. An examination of the interactions occurring among the variables revealed what combinations significantly affected the variation in scores. The differences in means of total scores for each of the main variables will now be presented and then explained.

Table 4.7 compares the mean scores for each effect.

Table 4.7

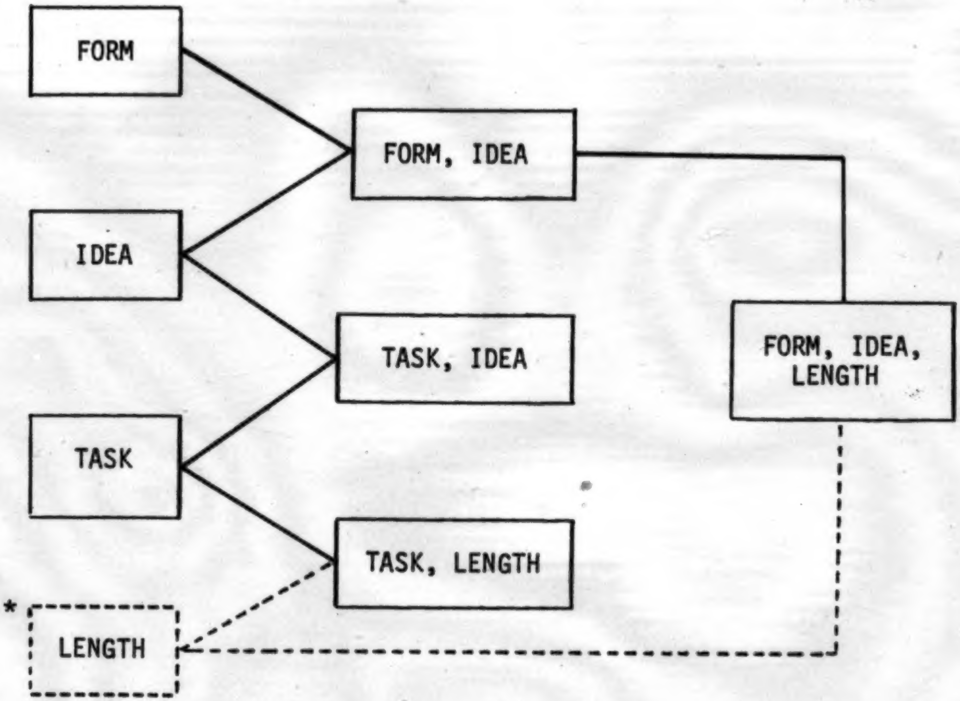
The Differences in Means of Total Scores For

Each of the Main Variables

	IDEA		FORM		TASK	
	EXPLICIT	IMPLICIT	NARRATIVE	EXPOSITORY	PRODUCE	RECOGNIZE
Mean	2.05	1.92	1.91	2.06	1.56	2.41

The results of this analysis indicated that subjects, on the whole, found explicit passages ($\overline{X} = 2.05$) easier to process for main idea than implicit passages ($\overline{X} = 1.92$). They also found expository passages ($\overline{X} = 2.06$), on the whole, easier than narrative passages ($\overline{X} = 1.91$). Lastly subjects were more able to recognize the answer ($\overline{X} = 2.41$) than they were to produce the answer ($\overline{X} = 1.56$). However, the discussion of the interactions revealed that significant interactions between length, form, idea and task occur, altering the conclusions that would be made had only the main effects been studied.

These major effects and their interactions are summed up by Figure 4.5 which reveals the interactions in general terms, and in Figure 4.6 which presents the specific factors in order, the first of the series representing the highest of the average scores attained. The figures reveal that the complexity of finding main idea cannot be adequately described by observing only the individual variables. The interactions among the variables provided differing levels of


FORM
IDEA
TASK
LENGTH
FORM, IDEA
TASK, IDEA
TASK, LENGTH
FORM, IDEA, LENGTH
*

*Non-significant main variable, but significant through interaction.

Figure 4.5

The Significant Variables and Interactions Affecting Total Scores

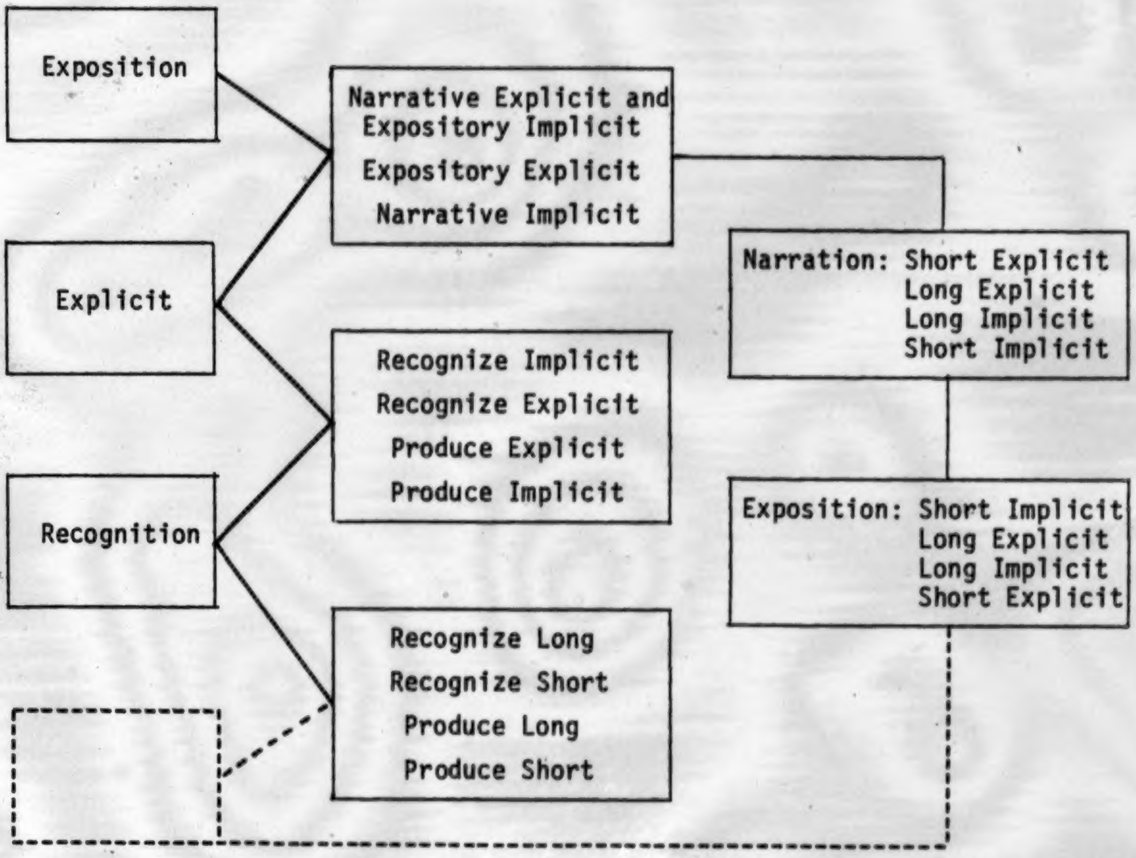

Exposition
Explicit
Recognition
Narrative Explicit and Expository Implicit
Expository Explicit
Narrative Implicit
Recognize Implicit
Recognize Explicit
Produce Explicit
Produce Implicit
Recognize Long
Recognize Short
Produce Long
Produce Short
Narration: Short Explicit
Long Explicit
Long Implicit
Short Implicit
Exposition: Short Implicit
Long Explicit
Long Implicit
Short Explicit

Figure 4.6

The Specific Factors and Their Effects on Total Scores complexity given the task of formulating main idea.

The overview having been presented, each area of enquiry will now be addressed and the hypotheses generated to answer these enquiries (see page 4) will be discussed. Each factor will be addressed individually, and then the significance of the interactions among the factors will be explained.

The Effect of Passage Length

The first major research question queried whether a difference in performance occurred when the student found main idea for a short passage compared to a long passage. Hypothesis 1.1, generated to answer this question, was accepted. Yet, the interactions which occurred between the variables revealed that the interaction between length and task was a significant factor in affecting students' scores, as was the interaction between length and idea/form. The significance of these interactions will be discussed in response to research question five.

The Effect of Stating Main Idea

The second research question, and therefore hypothesis 2.1, was generated to study whether a difference in performance occurred when the passages explicitly stating the main idea were compared to those implying the main idea. Hypothesis 2.1 was rejected. Students achieved higher total scores for passages containing explicitly stated main ideas than for those implying the main idea. Yet variations in the results occurred due to the interactions among the variables. Subjects were more able to process implicit short expository passages than long explicit expository passages and more able to process the long implicit exposition than the short explicit exposition. This relationship will be explained in more detail in the discussion regarding the interactions among the factors.

The Effect of Task

Hypothesis 3.1 was generated to answer the third research question regarding the difference in performance caused by recognizing the main idea compared to producing the main idea. Hypothesis 3.1 was rejected. Subjects were more able to recognize answers than they were able to produce them. Task was the most significant of the four variables $[F\ (1,4) = 247.24\ p \leq .00]$.

The Effect of Form

Hypothesis 4.1 was designed to answer whether there was a difference in performance when the reader chose main idea for a narrative compared to an expository passage. Hypothesis 4.1 was rejected. Subjects were more able to find main idea for expository passages. Yet, an inspection of the two-way and three-way interactions qualifies this statement. The subjects were able to process the short implicit exposition better than any of the remaining combinations with form. The simplicity of this passage may have inflated the mean score for the expository passages and produced the significant difference in scores. It is possible that given further research this difference between forms may not be significant.

Why the short implicit expository passage was easier for subjects is uncertain. Insight provided through the in-depth interviews revealed that the subjects primarily used a simple categorization strategy to arrive at the main idea. The categorization involved only generalizing that "breakfast" and "spoonerisms" fit under the category of "word". The influence of such internal structures should be researched in detail. Lastly, the generalization that subjects found short implicitly stated expository passages easier was based on only one passage, due to the restraints of the study. Therefore, while the conclusion that expository passages are processed more easily is supported by the results of this research, the conclusion is at best tenuous and requires further study.

Relationships Among Form, Idea, Length and Task

Four significant relationships were noted, and hypotheses 5.3, 5.4, 5.5, and 5.7 were rejected. While subjects were more able to recognize main idea, they were able to recognize main idea for the long passages better than for the short passages. Likewise, a significant interaction between the idea structure and the form of the passage occurred. The two-way interaction suggested that subjects found implicit expository passages easier than implicit narrative passages, and implicit expository passages easier than explicit narrative passages. Yet an inspection of the significant interaction between length, idea, and form revealed that when idea and form were separated on the basis of length, the effect on the scores was caused by the short passages. Subjects found the short implicit expository passages easier than the long implicit expository passages, but did not find the long implicit passages easier than the long explicit passages. For a more complete explanation, see page 96. Also, figure 4.6 on page 104 outlines the significant interactions among the variables.

No other interactions significantly affected the total scores achieved by the students. The remaining hypotheses were therefore accepted.

Chapter Summary

This chapter provided a summary of the observations used to answer the first five research questions asked. The formulation of main idea was shown to be directly affected by task, form, and idea structure. Length was not a significant independent variable affecting total score, but it interacted significantly with form and idea structure thereby influencing the subjects' formulation of main idea.

The interactions among the four variables altered the conclusions that were drawn when each individual variable was considered singularly. The subjects generally found the expository passages easier, but they were able to process narrative which explicitly stated the main idea as easily as they were able to process the exposition. Secondly, while the subjects were better able to formulate the main idea for passages which explicitly stated the main idea, they found passages implying the main idea easiest given the task of recognizing the answer. They also found long passages easier to process than short passages when they were asked to recognize the answer. Finally, when reading narrative, the subjects were most able to find the main idea for short explicit passages. Given exposition, they found short passages implying the main idea the easiest. On the other hand, the most difficult passages were the short narrative implying the main idea and the short expository explicitly stating the main idea. These results emphasized the complicated nature of the interaction between reader and writer (text).

Task was the only variable which consistently predicted score achievement. Regardless of the interactions, subjects were more able to recognize the answer than to produce the answer.

The statistical findings having been reported, the findings of the in-depth interviews regarding students' concepts of main idea, their strategy use, and their use of context will now be reported.

CHAPTER 5

FINDINGS: INTERVIEWS

This chapter will describe and report the findings gained through interviews with thirty-two grade six proficient and very proficient readers. These findings relate to the sixth and seventh areas of research comprising the study: the concept of main idea held by grade six students, and the use of strategies and context in finding main idea.

The first section of the chapter will describe the concept of main idea held by the grade six subjects. This summary was used to answer hypothesis 6.1 which was generated to determine whether there was a difference between the students' conceptual understanding of the term "main idea", as evidenced by their definitions and by their performance.

Concepts of Main Idea

When subjects are asked to find main idea, and subsequently formulate answers not in harmony with that expected by the researcher, the researcher might conclude that the subject cannot find the main idea. That conclusion could be inappropriate, since the subject may have an understanding of the task which is different from that of the researcher.

The purpose of this aspect of the study was to determine what definitions of main idea were given by grade six subjects, and whether their productions of the main ideas corresponded to their definitions. Later, how they operationalize their definition in producing the answer will be described and all three aspects will be used to form an operational definition of main idea.

Definitions and Answers

Prior to processing any of the passages, each of the thirty-two subjects were asked about their meaning of main idea (see page 82). An analysis of their explanations revealed that they had difficulty in linguistically expressing in general terms what they were later able to explain through the processing of specific examples. Of the thirty-two subjects interviewed twenty-one defined main idea as "what the story or paragraph is mostly about". Two subjects defined main idea as "the general idea". The responses of the remaining nine subjects are listed below:

1. the key idea that makes the story all turn over and come together.
2. the main answer - the first sentence that tells you about the paragraph.
3. the plot of the story.
4. what it's trying to tell you or get to you - some stories tell lessons.
5. what mainly happens.
6. the basic point.
7. the main parts that join the story together.
8. what makes the story.
9. what the problem is and how people solve it.

From the popular response and from answers 3, 5, 7 and 9 it was difficult to tell whether the subjects were referring to a summary statement or to a generalized idea which subsumed all of the statements in the passages. An investigation of their answers revealed that the majority of the subjects functionally attempted to produce a generalized statement. The ideas produced by the subjects who defined main idea as "what the story or paragraph is mainly about" are listed in Table 5.1. All but one answer complied with the stem which was provided: "The passage mainly tells that _____". Subject 2, however, ignored the stem and wrote "Lily's bad morning" for one of her answers. None of these answers provided a summary of ideas as an interpretation of "what the passage is mostly about." Therefore, the majority of subjects perceived main idea to be representative of a generalized statement which tells what the passage is primarily about.

Those answers provided by the subjects who gave the definitions "the plot of the story", "what mainly happens", "the main parts that join the story together" and "what the problem is and how people solve it" are listed in Table 5.2. Interestingly, these definitions seem more related to finding the main idea for narrative since they relate to plot, actions, and problem. An examination of the answers for the expository passages, however, revealed generalized statements, even though the last subject related the generalized statement to only one of the groups of people mentioned in the passage. Those two who defined main idea as "the plot of the story" and "what the problem is and how people solve it" seemed to have provided a summary of the categories of actions which occurred. For example, "Mary Jo wanted a dog" summarizes page one of the passage. "The pup was noisy" summarizes the actions on page two and how she solved the problem was explained on page three. While this statement of main idea does not

Table 5.1

Main Ideas Produced by Subjects for Narrative and Expository Passages

SUBJECT	EXPOSITORY	NARRATIVE
S1	Nearly every word has a story behind it.	Betsy, if she wants to, is a good freestyler.
S2	Tongues of animals help them alot to catch prey.	Lily's bad morning.
S3	Words have many different meanings.	Betsy losing the freestyle but beating her own time.
S4	Some words are strange and some are coined.	There is a swimming contest.
S5	Ice was shipped all over the world in different ways.	You shouldn't accuse something when you don't have proof.
S6	Baby chimps and human babies grow and learn in different ways.	Kids can be responsible people, too.
S7	Human babies and chimpanzees progress in different ways even in the same environment.	A dog is cute and cuddly but is a big responsibility.

Table 5.2

Main Ideas Produced by Subjects 17, 21, 27, 32

For Narrative and Expository Passages

DEFINITION	EXPOSITORY	NARRATIVE
The plot of the story.	At first chimps are more developed than humans - then humans catch up.	Mary Jo wanted a dog, when she got one, the pup was noisy and she had to solve it.
What mainly happens.	Intelligence between animals and humans are different.	The responsibilities of owning a pet.
The main parts that join the story together.	Ice was not available in the early ages of man.	The prince's dog loved the baby very much.
What the problem is and how people solve it.	The Greek people had ice-houses and all they drank was snow water and ice water.	The dog wanted to stay to guard the baby and he did and he got the wolf away from hurting the baby.

present a generalized category under which all the details fit, generalizations have occurred but not to the same degree. Subject 32 did provide a summary of the actions. Since the summary was given only for the narrative, it may be that the subject experienced difficulty in generalizing the idea for the story, or possibly the reader has a differing definition of main idea for expository passages but was unable to verbalize it.

Of further interest were the responses to the passages which implied the main idea. When subjects were unable to state a generalized idea for these passages, they attempted a summary and tacked "about" to the beginning of the statement. For example, subject 3 wrote "The passage tells mainly that about Betsy and how she had to go in the relay and try and bring her team to victory". The syntax of the reply demanded by the guiding sentence frame was ignored, and "about" signalled that while the subject wanted to produce the generalized idea, he could not. The main idea was "about how ______". The following examples reveal this procedure in use with narrative:

> "About a girl who hurt her leg and another girl took her place at a swimming meet."
>
> "About a prince thinking a dog has hurt his son but later on finds out the dog was protecting his son from a wolf."

A summary statement was also used by one subject in response to the long implicit expository passage:

> "About how ice was found and how it was kept in many countries."

While these subjects defined main idea as a general statement and provided a general statement for one of their answers, they were unable to produce a general idea for the passage which implied the main idea. They were able to establish who the main character was (in narrative) or what the main topic was (in exposition) but they were unable to categorize their summaries of details into one overall statement about the topic.

The use of "mainly" and "mostly" by subjects 21 and 27 pinpointed a form of importance taken into consideration by the reader. These words were often used, as in "what it is mainly about" or "the main part of the story". Subjects 25 and 14 referred to "the basic part" and "the main answer" respectively. These statements infer a singleness of answer - the basic point, as well as a concern for importance. Subject 4 expressed a similar concept when he said "the key idea that makes the story all turn over and come together". His idea suggested a purpose for this central important point: it ties everything together.

Definition of Main Idea

An analysis of student responses revealed that the concept of main idea understood by grade six proficient and very proficient readers may be described as an interaction of five major characteristics:

1. It is an extraction of the essence or message in concentrated form.

2. It is singular: it is the main message being communicated.

3. It is central: the complete passage revolves around this message, and the message is found in all parts. It makes the passage all come together or turn over.

4. It is general: the generalization is an abstraction synthesized by categorizing the relationships among the parts.

5. It is significant: it is the most important message or

essence because of the combination of two other qualities - repetition and completeness. The message is repeated time and time again throughout all of the context.

While no subject was able to linguistically express these characteristics explicitly, they implicitly expressed them through their actions and their answers. The subjects did not differentiate between a main idea for narrative and a main idea for exposition, yet an examination of their strategies revealed they distinguished the two. Hypothesis 6.1 was therefore rejected. Subjects provided general unsophisticated definitions for main idea, but operationally, they revealed a complex understanding for the term.

The remaining sections of the chapter will reveal the complex nature of their operations, and will answer research question 7 which asked how students process the information in the passage in order to find main idea. The reporting of the subjects' strategy use and of their conception of what aspects of context are important will clarify the interaction between the five stated characteristics. The formulation of an operational definition of main idea will then be possible.

Strategy Use

The thirty-two very proficient and proficient readers were asked during their interviews about the strategies they used to help them find main ideas. After the interviews, their responses to specific passages were categorized. Their revelation of strategy use will first be reported. Next, the results of the categorizations of responses will be reported.

Metastrategy Awareness

Of the thirty-two readers interviewed, three subjects stated they did not know what strategies or techniques they used to find the main idea of a passage. Yet, these three demonstrated strategy use when they were asked to find the main ideas of the specific passages.

The remaining subjects presented a personalized overview of their general strategy use. The following examples revealed the personalized nature of the descriptions:

> S1: Like if it's a story, you'd read say the whole thing instead of just one paragraph and if it talks about like many different things about one subject like telling, like if it's a cabin, telling what it looked like, [if it's not a story] you read through carefully and find out what he talks about most.
>
> S5: The first line usually tells you what the story is about - or you just skim through until you find it. It tells you about the story. It sounds and is more important. You can tell through wording and punctuation.
>
> S6: When it's a story, I look at the whole story in general and find the plot and that sort of gives me the help to find the main idea. And then if it's a paragraph and then you just look through it and you decide what the main idea is. In a paragraph - like what they talk about. If the author centers on it, that usually gives me an indication of what the main idea is.
>
> S10: I read through it the story and well, like sometimes the main ideas are interesting so I sort of slow down and read more carefully where what the main parts that are interesting. Researcher: "Why are they more interesting?" Because like more tense, or maybe it's something you like.

> S15: You read the first paragraph and that usually tells you more about the story. It introduces the characters and the scenery and everything like that - what's happening in the story, what's gonna happen, what it's about.

Few subjects distinguished their strategy use for narrative and expository passages: most subjects referred to passages as "stories" and two subjects asked what the researcher meant by "passage". Those subjects who did distinguish their strategy use related the use to the internal structure of the passage. For example, subject three referred to the plot in a story but the topic in a paragraph. Although the majority of the subjects related their strategies to "stories" they used significantly different strategies when they processed expository and narrative passages. These differences will be reported in the next section.

While many of the subjects stated that they looked for the important sentences, they were unable to relate what kind of information they generally considered important information. However, when they processed the passages, they expressed clearly what they found important and why.

Finding the main idea seemed to require a great amount of effort. Subject 12 stated "I go back and re-read" and subject 8 said "I read it over maybe twice". Subject 6 explained:

> S6: After I finish reading it and I know what it's about, then I sort of go over it and I look for the important sentences, and they sort of tell you.

Subject 20 also referred to the need to re-read:

> S20: You read the whole story over, and then you think of what could be most important in the story and then you look through the story to see if there's anything that gives you the same idea.

Thus an awareness of a need to re-read the passage was prevalent. Reading once served to ascertain what was important and to form a tentative generalization or conclusion while the second reading served to check whether the conclusion covered all of the details. Each re-reading was instituted by the reader for a different purpose.

While the subjects provided only one major strategy when they were asked what strategies they used, all of the subjects used an interrelated complex of strategies when they processed the passages. The major strategies which emerged from the categorization of subjects' passage specific responses will now be described.

Emerging Strategies

Emerging from the categorization of student responses were ten strategies. The subjects used the strategy by itself or in combination with one or more of the other strategies. The ten strategies which were identified are:

1. Imaging
    a. Personalizing the experience by imaging actual involvement or by picturing the experience.
    b. Picturing an object described.
2. Establishing the major character within the major event.
3. Cueing on plot - determining the conflict and its resolution.
4. Recalling selected events from the passage.
5. Establishing the common topic and then adding up all of the differences described about the topic.
6. Summarizing all of the significant details and categorizing them to form a generalization.
7. Using key ideas or words.

8. Using a question to frame a selective choosing of detail.
    a. Using a question provided.
    b. Independently formulating a question.
9. Using a frequent repetition of a topic.
10. Using a provided comprehension aid such as a preview, title, etc.

These strategies and their use will be described in the following sub-sections.

Imaging. Five of the thirty-two subjects explicitly stated that they used imaging to help them determine the main idea. In processing narrative, the strategy involved personalizing the experience described by picturing the experience in the imagination, or by imagining actual involvement by taking the place of the main character and living the experience. The following explanations revealed the reliance upon explicitly picturing the scene and the events which had occurred in the narrative passages:

> S1: No, just my pictures in my mind. I usually picture the scene while I'm reading it. I picture what's happening when I'm reading.

> S3: Well, I read it over twice. At first I didn't really get it. And then I pictured it as I read through it both times. And I guess I used some words.

While subject 3 also used key words to help him find the main idea, he found that mentally creating the picture aided his understanding of the passage. Subject 4 added a different dimension to personalizing the experience. He imagined he was the prince, and he also criticized the actions of the prince as if those actions were his own:

> S4: Well, when the prince had left Sam was right beside the baby and I said you shouldn't accuse something when you don't have proof. And when he got back and he found Sam was scratched and had blood all over him and he ran towards Sam thinking that he might have injured. The crib was turned over and everything and he might have injured the baby. And he was going to hit Sam and he saw the wolf cowering in the corner so he really shouldn't accuse something until you have proof about it. So you can prove if it's really, like has happened. Well, I was putting myself in, sort of, the prince's shoes and saying well he, he ran towards Sam and everything. He was thinking that Sam might have hurt the baby so he picked up a stick and started running toward it. Well, I was imagining that if I was the prince, how I would have felt and then when I saw the wolf I would have felt sort of sorry for the dog. And so, that's how.

By pretending he was the prince, subject 4 was able to feel the conflict of the prince and therefore he was able to establish the main idea of the passage. Subject 18 also used this strategy but she seemed to personalize the story to a greater degree. She recounted the events as if they had happened to her:

> S18: Well, I imagine that I'm in the story, sort of, and I'm watching this happening. Well, I wanted this dog and everything and I bought it. And I told them I'm going to take the full responsibility. And then it starts crying at night and you have to lay papers out every day and it's really hard so I got my answer by knowing that it's going to be quite hard to raise it and you have to take a real big responsibility.

Picturing the experience or actually taking part in the story was described as a strategy only when narrative was being read. When the articles read were expository in nature, the use of the imagining strategy shifted to picturing the object being described rather than picturing an experience being felt by the character in the story, or by the reader. In this sense, more objectivity or a greater distance was maintained by the reader. The following explanation of the use of the strategy was provided after subject 7 read "Tricky Tongues":

> S7: For the description it helps me understand what the animal is like, like what the animal's tongue is like so I can find the main idea easier. It helps me because if I can, if I know what the animal's tongue is like and I know what the animal is, I can draw a picture in my mind and I can compile more information to get my own answer.

The concept of "compiling more information" seemed to suggest a basic difference between the narrative and the expository articles, in that with the narrative the need to "feel the experience" presented a different kind of reader involvement. While the imaging strategy was used during the processing of both kinds of writing, the purpose of the picturing and the "what" of picturing changed.

Establishing the major character within the event. Another strategy used to determine main idea centered on the establishment of the major character involved in the story. Once the major character was selected, the subject cued on the character's conflict, and found the main idea. This strategy was described only in connection with the processing of narrative. Subject 12 reasoned that the dog in "Mary Jo's Responsibility" was the main character because it received the most attention:

> S12: Well, when you read it you just, well it's like about the dog, right. And when it talks mainly about the dog and what happens with the dog and why he's such a big responsibility and all that kind of stuff.
>
> R: OK, and how did you use all that information to find your answer?
>
> S12: Well, all the information was mostly centered around one thing.

> R: Around what?
>
> S12: The dog.

Subject 19 used the same strategy, with an added dimension. She also ascertained why the other characters were not the major character:

> S19: Well, sort of like when you're reading it like the first sentence tells you usually something about it but not too much and it tells you that she wanted a dog and then you read on and you find out that there's a lot of parts in the story that are about the dog and what happens with the dog and how she wanted a dog and what the dog did and all that kind of stuff. So it was mainly about the dog.
>
> R: So what did you do then? How did you use that information to help you find the main idea?
>
> S19: Well, there was lots of parts in the story that were about her and her father and things like that but what it was centered around like, you know, her father said he didn't want to see the dog anymore and stuff like that. He was basically talking about the dog. And then just basically about what happened with the dog and what she did with the dog.

The establishing of this central character - who the story was mainly about - seemed to aid in the reduction of options to attend to when defining the central conflict. The central conflict was found by establishing the central character. This strategy was mostly used in combination with strategy 3, outlined in the next section.

Cueing on plot. The majority of the subjects cued on the plot when processing narrative passages. Not all students explicitly stated their use of this strategy, but an analysis of their responses revealed that they selectively chose details which related to the establishing and resolving of the conflict. Subject 23 explained his use of the strategy:

> S23: Well, it's just at the start here, it - she

> didn't want to - she wanted to swim in the freestyle but she didn't want to swim in the thing where it really depended on her because then she could lose it for her team or win it for her team. And I got it because up here right away she didn't want to be in the relay too. And I knew what it was like because in the track meet here - like sometimes I got a relay team, and I didn't, I was scared because I didn't want it to depend on me. And so I got it right away. The author was telling us that sometimes you want to do a good job for your team but you don't want to be in a situation where it depends on you.

In the above passage, he found the main idea by establishing the main character, defining the internal conflict of the character, and relating this conflict to his personal experience in a similar situation. He then related this insight to the resolution of the conflict:

> S23: I read it and I thought about the things together that I thought were good - that had to do with part whether they won or not. Because then I'd know how she felt without having to read any more.

While some subjects were not as able to linguistically describe their mental actions, they still used the same strategy. Subject 24 described how she found the main idea for "Taking the Plunge":

> S24: When I read it you found out that everything was about swimming and how Betsy didn't want to try but she had to. And then in the end she won.... When she was doing it she wanted Marti to do it but Marti got hurt so she didn't want to do it but she had to. So after all it worked out right.

In general, the subjects lacked the appropriate vocabulary to describe their mental operations. Three of the subjects described the conflict as "establishing the problem", and determining the resolution as "solving the story". Yet, their explanations revealed that they were cueing on the conflict and its resolution to establish the essence of the story. One person, subject 28, included the use of the exposition to help establish setting, character, and initial incident, but again, she could not remember the word that described her operations:

> S28: Read the first paragraph and that usually tells you what the main idea is and then the rest just tells more about the story.
>
> R: Tell me how that first paragraph tells you what the story is going to be about. Explain that more.
>
> S28: Oh, there's a word, a meaning for it. I can't remember it.... It introduces the characters and the scenery and everything like that - what's happening in the story, what's gonna happen, what it's about.

She then applied this strategy when processing "Mary Jo's Responsibility":

> S28: As I was reading, the first paragraph told me that she wanted a dog. And as the paragraphs went on it kept telling me more and more about what she wanted. Without that the story wouldn't mean anything.... She wanted the puppy so much that she took responsibility to do what she did.... It helped me solve the story.

Cueing on the plot was a heavily relied upon strategy. For a very detailed description of the process in use, see Appendix D which presents the explanation given by subject 21.

The next category (recalling selective events) was separated from this category because the responses were not specifically centered around the central conflict and its resolution. A description of the "recalling of selected events" will be given in the next section.

Recalling selected events. Another strategy used in processing narrative involved recounting the major actions occurring in the story. This general recounting of the plot was different from the cueing on the central conflict. It seemed to represent a "boiling down" of all of the details to the main actions occurring. These main actions accounted for all of the context and reflected the main idea. In processing the following passage, subject 31 explained how he found the main idea for "Mary Jo's Responsibility":

S31: Well, Mary Jo, she wanted to get a dog and she used to tell her parents everytime to - everytime to - like in the ads of the pet sale. And then her Dad told her that she had to be responsible for taking care of her and so one day she found - inside the ads - puppies for sale. Just one store, so they went down there and they looked around and this one came over and licked her and so she wanted that one. So she took it home and they had to take care of her by, like they had to put it in this one part of the house so she was housebroken and and every night she would cry so Mary Jo she would, she found an idea that she could bring her bed and sleep with her dog so that she wouldn't cry. So she didn't, so the dog stopped crying.

R: What did you put down for the main idea?

S31: Mary Jo wanted a dog and has to be responsible for it. She has to take care of it.

R: Now how did you get from, you know you told me what the story was all about. Can you tell me how you got from that to this answer? Were there any strategies you used?

S31: Not really.

R: You can't think of anything. Any time you read a story do you have a certain strategy you use to help you figure out the main idea?

S31: No.

Explicitly, subject 31 was not aware of how he made the connection between the selective recounting of the plot and the main idea. Neither were any of the other subjects who used this strategy able to tell what the strategy was. Yet it was most successful for them, as noted in the following conversation between the researcher and subject 29:

R: Tell me everything you can remember about how you found the answer.

S29: Because the prince went out hunting and his dog wouldn't go. And when he came back the dog was all bloody so, but the prince thought that he had killed the baby. So he went upstairs and saw the wolf there and he knew that the dog had protected the baby by hurting the wolf.

R: But, now you've told me what the story is about. How did you know that the answer was "Dogs are loyal and faithful friends"? How did you go about figuring out what the main idea was? What did you do? Are there any strategies that you used?

S29: I don't know.

The recounting of the major events may have provided a frame for the relating of personal experience to these events within the story. This possibility was hinted at by subject 21 in her explanation of "Mary Jo's Responsibility":

S21: Well, OK. She wanted a puppy for so long she finally got it. And then it started crying at night and everything and it couldn't get to sleep. Then she did something so it got to sleep. And I just figured that she was pretty responsible that she could be able to help the dog get trained and everything. So, I put down for an answer that kids can be responsible people, too.

R: How did you get that answer? Well, you said that this happened and this happened, so I figured she was pretty responsible. You just came out

> of the clear blue. How did you get your answer that you thought that she was pretty responsible? How did you reach that conclusion? How did you reach that?
>
> S21: I don't know. It just came to me.

Recounting the major events was not used only with narrative. The following explanation by subject 17 revealed its use with exposition:

> S17: Well, just like it says here some ancient people cooled their drinks with ice and snow. The Greeks thought that ice cooled the body and made it more active. Without the ice they thought, a person became lazy. Romans spent a lot of time and money to have ice during their hot summers. Slaves were sent up to the mountains. They packed ice and snow into straw-covered wagons. Then they hauled the wagons back to their masters. And you know, it's kind of like how they got it from one place to another.

The summary of events seemed to provide the main details throughout the passage, allowing sufficient memory of all of the context, upon which to draw a conclusion. Subject 25 used this strategy but ineffectively because he identified the characters as two chimps instead of one chimp and one boy:

> S25: OK, well there were two chimps and they were raised together and they did mostly the same stuff and then after awhile this one chimp he did better than Donald, this other one. And Donald, he started to catch up and like they keep on, they kept on doing stuff together and I guess they, I guess Donald catched up and it doesn't really say what happened next.
>
> R: Now, you told me what happened in the passage. Can you tell me about any strategies that you used to help you figure out what the answer was?
>
> S25: Like, they were just, the two chimps and all they did was do things together so, I guess that's all they did was things together and

> they, they learned to talk and all that.

His summary of details throughout was incorrect and therefore he could not correctly formulate his major generalization which was built on his previous generalizations.

Establishing the topic and adding the differences. The use of this strategy was described only during the processing of expository articles. It was a primary strategy used by most of the subjects. First they found the common topic that was repeated and stressed throughout the various paragraphs; then they added up the major points being made about the topic. In her explanation of finding main idea for "Tricky Tongues", subject 8 stated:

> S8: I think the main thing in the story, like there were lots of different words and sentences and that and I think the main word was that was the word tongue. Because the others like, every paragraph sort of just supported that and so you know tongue. That's what they're talking about. The whole story is about the tongue. And I just, it just told you some of the things that your tongue does for you. It gives you examples of what tongue does for other animals so I got my main idea.

Subject 10 emphasized the need to consider the whole passage: all of the context rather than merely one paragraph. Yet, he had difficulty explaining the significance of the passage context:

> S10: You read the whole thing instead of just one paragraph and if it talks about, like, many different things about one subject like telling, like if it's a cabin, telling what it looked like.

Subject 8, on the other hand, clearly explained why every paragraph had to be attended to:

> S8: Well, in every paragraph there's something that usually tells you about, like in this case it was about the tongue. And in every

> paragraph you try to find out about the tongue. [I go through] every paragraph and whatever sentence talks about the tongue I keep that one in mind. You go through and then after - the whole sentence - you come up with that and that's the main idea.

The choosing of the major detail of every paragraph and then the summarizing of these details was a strategy which was similar to the recounting of the major details in the narrative. While the concept may be the same, what differed was the operationalizing of it. In the narrative, the major events of the plot line were attended to regardless of the paragraphs, and no repetition of the topic occurred. Thus, to find the main idea, a generalization had to eventually occur. With the exposition, on the other hand, attention was directed to every paragraph. The major topic was repeated in every one and was established as major through repetition. What was said about the topic was developed by selecting the main detail in every paragraph and adding them together. This alteration in strategy underscored a major difference between the structure of narrative passages and expository passages. In the narrative, the paragraph was not a key element to attend to: the key element was the plot with its establishing and revolving of a conflict. In exposition, attending to the paragraph as a structure yielded the emphasis and repetition of the topic as well as the key points made about the topic. This concept of importance through repetition was expressed by subject 1:

> S1: Each one tells something about the tongue. When you look through, it mainly tells about how the animal uses the tongue. I thought that might be the most important thing in the paragraph.

Subject 19 explained how establishing the topic through repetition was achieved through her explanation of "Keeping Cool":

> S19: Well, what I did was OK, I read this over and then I saw, I look at all the parts that said how they shipped the ice and where they shipped it to and what they used it for and everything. And I just took that stuff and I sort of combined it all in one and I got the main idea.
>
> R: How did you combine it in one? What did you do?
>
> S19: Well, I did it by, I took the really important parts and I just sort of put them together into a sentence. And then I wrote it up.

The significant characteristic of this strategy was the adding of the differences through the summary of the key details. The next strategy presented a sum of the differences not through addition but through categorization into a generalization.

Summary by generalization. Generalizing was used for processing either narrative or expository articles, but was prevalent in finding the main idea for expository passages implying main idea.

Subjects, when they used this strategy, did not begin by establishing an explicitly stated topic. First they isolated significant different details, and then they extracted the general common point. The strategy is recounted by subject 7 in explaining how she found the main idea for "Lily":

> S7: I read this and I found out that she kept on tripping and dropping things and losing all her stuff and forgetting to make stuff. Like it says that she forgot her lunch and dropped a glass of milk and tripped over her shoes.... It all seemed to fit into one little category. Like the whole thing fit in. You kind of look at all those things and figure out what they fit under, like.

While this strategy was used in processing both long and short passages, no subject attempted the strategy with the short implicit narrative. The two subjects who attempted the strategy with the long implicit narrative found the strategy unsuccessful. It may be that a categorization strategy is not effective when an internal conflict is implied. Subject 2 recounted her use of the strategy:

> S2: I got all the things that fit together about swimming and about the seconds and about Betsy and Marti and all that together and she found out that she was a fairly good swimmer if she tried. So I just gathered up all the information. I put them altogether, and then like, I went over and I put the other ones that seemed the same together and fit into one category. It mainly tells you that she wants to be a good freestyler.

While the conclusion was feasible; that is, it did arise out of the details, the answer did not account for all of the context. It ignored Betsy's basic internal conflict between wanting to prove she is good but being fearful that she will be poor. She stands to either gain or lose her friends' respect depending upon her performance in the race. While the use of this strategy may be effective when repetitive actions all exemplify the same problem or at least the basic conflict as in "Lily", it was not a viable strategy for passages in which the actions added up to the problem instead of repeating the problem. Because the details in "Lily" underscored the conflict, that is, they repeated the conflict, the strategy worked well.

Whereas the strategy seemed to be effective for only a particular narrative structure, it worked well with the expository structure, as exemplified by subject 4's explanation of "An Interesting Story":

> S4: They're telling about breakfast and spoonerism. And those were the two words they were talking

> about. I read what it told about them, and thought if both their meanings were the same.... It tells you about two words that have a, like they tell you stories about the word.

This strategy worked well for finding the main idea when it was implicitly stated in an expository passage.

Using key ideas or words. Using key ideas or words was used in combination with one or more of the other strategies. With the previously outlined strategies, the subjects needed to be able to select key words and ideas in order to make their strategy work. While a later section explains how key words are used to find main idea, its use as a strategy for finding main idea will be described here.

Subject 23 explained the strategy:

> S23: I read it over and picked out the most important sentences - which ones she mostly emphasized, she told more about. And then after that I put all the sentences together and whichever one came up more, like whichever one, if there are two sentences which are more alike well then that would be more what the main idea is.

The determination of key information was based upon repetition and emphasis. It was primarily used as a strategy when the main idea was explicitly stated in the passage. Subject 18 explained how she used this strategy:

> S18: Well, the first sentence is baby chimps and human babies grow and learn in different ways. It sort of gives you a hint what it's going to be about, well, what they learn that's different. Otherwise, they wouldn't have that sentence there.... And then you read on and it says sort of an experiment of what a person did. And then it tells and it's still about the baby chimp and a human. And then it tells that the chimpanzee, he develops faster than the little human and he responded to more, I don't know, commands or something

> like that. And it just all through it tells about how the chimpanzee progressed and then the little baby and stuff. It says baby chimps and humans grow and learn in different ways. And it's just sort of giving more information on how they grow and learn in different ways.

These key ideas were used as a basis for predicting what the rest of the passage was about, or for verifying whether a prediction was correct. In what fashion it was used seemed to depend upon its location in the passage. For example, subject 11 explained how she used the explicitly stated key idea when it was located in the last paragraph of a long expositional passage:

> S11: Well, I went about finding the main idea by reading it over and then like, I underlined "Animals tongues are designed to perform in special ways" because that's what it says in each paragraph. It tells you something different about each, like different animals' tongues. Like what they're performed to do. And I don't know, I just read it over and just thought about what, what he wrote or she wrote and then, well it just because well, it mainly just tells you that like, each tongue of a different animal performs in one way or another. I had to read almost all, the whole thing. When you get to, well the end here "Every animal's tongue is designed to perform in a special way", that's sort of the part that says the whole thing was about animals' tongues.

In this case, the key idea was used to corroborate the predictions made on the basis of the selection of other key ideas through the passage. The basic key ideas were retained because they gave some different information about the general topic in each paragraph. The key main idea provided the category into which all of these other key ideas fit. Subject 6 uses a similar strategy in finding the main idea for "Lily":

> S6: I just read it through and it just sort of, at the end, it sort of gave me clues that like, everything seemed to go wrong for Lily this morning, this Monday morning. So, I don't know, I just, just went through it.

Subject 4, in explaining the strategy he used to find the main idea for "Lily", said:

> S4: Yeah, like, well you kind of find the key sentence and then just kind of figure out what it's mainly about.

One subject used this strategy independently when the main idea was not explicitly stated for him. Subject 18 explained how he found the main idea for "The Faithful Dog":

> S18: Well, like I looked for the main sentence which was he loved his master but most of all he loved the prince's baby son. That, I think, that's the main idea because he likes the prince's son alot. Like, he thinks he's really cute and he really likes playing with him. Like he was prepared to, I think, he was prepared to die for him because he was fighting a wolf to save the kid.

He cued in on the idea that the dog loved his master but most of all he loved the master's baby son. This key love of the dog for the baby established the loyalty being more important than mere protection.

Several of the subjects used the same strategy of "keying in" but honed in on words rather than complete ideas. Keying onto a word was used primarily to establish the topic of the passage. This topic could then be used as the "central director" for cueing on other key information. Subject 3 explained her use of the strategy:

> S3: I read carefully and the answer was actually, was printed in the story too. It said how the woodpecker's tongue is shaped to spear bugs in a dead tree and how the anteater's tongue is shaped and how the giraffe's tongue

> was made long that it could wrap, curl
> them around the leaves. And how a snake's
> tongue was shaped so that it could, like
> stick its tongue out and then bring it
> back in and go touch the tongue to the
> pits so it could smell.

These key words were linguistic organizers for the cognitive organization and assimilation of meaning. Subject 28 also related how she used the strategy:

> S28: I figured out the main idea when I was reading through the passage I looked at, I read the back again and it told me what it was about and when I finished reading then I just thought to myself and just looking back at the key words and it helped me remember.
>
> R: OK. Can you explain that in a little more detail now. Like what were the key words, what did you look at?
>
> S28: I looked at the beginning that baby chimps and human babies grow and learn in different ways. That one made me wonder what two different ways, so then I came down there and it said that the chimp first started to learn quicker and became stronger than the human but then when the human started catching up the human started getting more developed than the chimp was.

For her, these key words aided the remembering of significant information. The key words also gave direction to the processing of further information. They provided a framework for the interpretation; for example, she said "they made me wonder what two different ways". The cueing on differences was essential to establishing the main idea of the passage. This strategy is such a key strategy that a further analysis of what information is key information and how it is determined will be given in the next sections of the report. The need to extract key information was essential to finding main idea, and what was chosen as important influenced the final determination of main idea.

Using a question to frame a selective choosing of detail. Only one subject used this strategy independently but six subjects discussed the use of framing questions when the task they were asked to perform involved the selection of an appropriate answer from a multiple choice question.

Subject 21 who independently formulated a question described her strategy:

> S21: I read very carefully and at the beginning I kind of asked myself a question like, why is your tongue important to you and other animals. And as I read I found bits and pieces of information and I put them all together and then at the end there is also the answer it would partially help, it would mostly help. Like the answer that I got after I compiled all my information.

In this sense, she used the question to help her select pertinent information. Anything helping to answer the question was kept and later compiled.

The remaining subjects used the multiple choice question as a frame for their selection of detail. Sometimes they already knew what the main idea probably was, but at other times, the answers in the question were used to make the decision:

> S2: Well, I didn't really find it till like, breakfast and they broke it up into two words and told about meaning. And then with spoonerism and then that they said it comes from Reverend Spooner. And that's how I got my answer.
>
> R: OK, how did you get your answer? You looked at the two examples and then what did you do?

S2: And then I just read through the questions and then read the story again and then I just picked.

R: OK. So did you not know what the main idea was until you did the question? Did you use the question to help you find the main idea? Or did you know before?

S2: No, I didn't know it before.

The decision as to what answer best stated the main idea was made in a number of ways. For example, subject 25 chose the option that repeated the first sentence of the passage:

R: You chose "d" as an answer, "Chimps and humans grow and learn in different ways". Can you tell me everything you can remember about how you decided that was the main idea.

S25: Well, I just decided that because in the opening sentence it says exactly what "d" did so it had to be that one. Like, I didn't even have to, wasn't anything, wasn't anything to think about.

R: OK, now the thing is, did you know that was the answer before you read the question, or did you use the question to help you identify it?

S25: I used it to help me identify it because it depended on the question, what the answer is going to be. Like, I'd say that in this passage the author mainly tells you that and then it could have something else for "d" and then you'd have to pick "a" because it also showed that baby chimps grow faster than humans. But it wasn't the first main idea.

R: Oh, so you did that one because it was the first idea?

S25: Well, it was the main idea.

The first sentence had explicitly stated the main idea, and he had successfully matched the most appropriate option. As he had stated, the question was instrumental in choosing what the main idea would be, since it imposed an interpretation upon him. Subject 10 used the options in a different way. She used a process of elimination, but she did not choose the most appropriate answer:

S10: OK. First of all I chose the last one "Haste makes waste". And, because like, she hurried the whole morning and everything and because of what she like, well, she forgot her lunch bucket and she spilled her milk and everything. And everything happened wrong that day and it said that I just picked number "d". And it says "c" "Going to school on Mondays is particularly hectic" could have been almost any day that she could have done that. So I didn't pick that one. But and then the next one is "Lily closed her eyes for a moment and thought about her morning". That only told like, it sort of told that one sentence, it really told it clear but it only said that one time. It barely mentioned it. So I didn't do that one. The next one is "Everything had seemed to go wrong". Like, well I didn't pick, choose that one because like, everything did seem to go wrong and that was pretty close to my answer like, I almost picked that one because like, it was almost like, the same meaning.

R: Why did you choose the "d" over the "a"?

S10: Well, I think "haste makes waste" because, like she hurried and everything because it was a Monday morning and maybe she wasn't prepared for school as much as she would be on Tuesday or something. And then...

R: But does it say that she was in a hurry?

S10: Well, as she got out of bed she was tripping over her shoes and when she was getting dressed she pulled off a button on her sweater. Like, then when you read the story it sort of sounds like she was in a hurry by the way they explained it and everything.

It wasn't that she didn't comprehend the story, and she almost chose the most appropriate answer, but she didn't because she inferred from her experience. One cannot conclude that she did not comprehend the passage, but she may have lacked expertise in answering multiple choice questions. She did not seem to be aware that the statement she chose was an overgeneralization and that "a" would have been the most appropriate choice.

Repetition of a topic. Establishing the topic by identifying the subject most often repeated was used by subjects when they read exposition. One subject used this strategy to help determine the idea of "Taking the Plunge", but its use was ineffective, as demonstrated:

> S5: The author mainly tells me that there was a swimming contest, like the relays and freestyle. Well, at the beginning it said something about freestyle so at first I knew that it was a contest. Cause right at the beginning it says something about a freestyle contest. I just kept reading and there was more about the swimming contest and that's mostly what they talked about.

By not cueing on the major character and her conflict, subject 9 was unable to tell what about the contest the writer was discussing. The subject was only able to ascertain the setting of the incident and not the incident or its ramifications.

The other subjects used this strategy for exposition. Subject 16 established the topic for "Tricky Tongues":

> S16: Well, I read it over and the whole story was mostly talking about tongues. And how they perform in special ways, like some animals' tongues are like a woodpecker; he pecks at all the wood with his tongue and then the insects come and he sticks his tongue down there and pulls them back with it. Like it's sort of sharp at the end and it sticks and he just pulls it out and eats it.

Likewise, subject 32 used the same strategy for processing "Keeping Cool":

> S32: Well, as I read I saw more and more that they were talking about ice and more ice and stuff and so then you kind of get to think that it's something about ice and then when you read on it talks about icehouses and how they shipped it to different countries and stuff. And so then you know that they're talking about the ice and that's going to be the main idea.

The use of repetition to establish the topic was closely related to the strategy of establishing the topic and adding the differences, but the responses in this category merely keyed on the topic, but not its differences.

Using comprehension aids: previews. Subject 21 generally referred to the use of previews and titles to help find main idea. Titles had been omitted from the passages to disallow their use in attaining main idea, but subject 21 mentioned her use of titles as well as other aids, when she read independently:

> R: Can you tell me by telling me what you do when you try to find the main idea?
>
> S21: Sometimes there's something that tells you about what you're going to read, and I read that, and then I...
>
> R: What is that something?
>
> S21: Oh, I forget what it's called, but it has a little...
>
> R: Oh, a summary? A little summary?
>
> S21: Yeah, a summary. And I read that, if there is any and then I go into the story and find out what's happening.
>
> R: And how do you use that summary? Why is it important?

S21: Well, it says what's in the book so you know if you're going to be interested in it or not, well, and I read alot sometimes and when I read that I discover how good the book is.

R: OK, so now what happens when you find a passage that doesn't have that little summary? What do you do when you've got to find the main idea?

S21: Well, I read the title and then I start reading the passage and well, it usually just sort of comes to me as I read. Like, what the story is about.

R: And can you tell me just how it sort of comes to you?

S21: Usually the author writes down what's happening and you can picture it inside your head.

R: OK, so what do you do as you picture it inside your head when it's happening? What do you do when that happens? How do you use that to get that answer that you got?

S21: You just sort of put yourself in the character's place.

Had titles been included with the passages, more subjects may have described them as a frame for cueing in on the essence of the passage.

Conclusions on Strategy Use

Research question 7 queried how students process the information in the passage in order to determine main idea. The first aspect of the question related to the operationalization of strategies and to whether the strategies used were affected by the form, length or structure of the work or by the task given the subject.

An analysis of subject responses revealed that when subjects were asked what strategies they used to find the main idea of a passage, they usually explained only one strategy. Yet, an analysis of their responses to specific passages yielded ten major strategies in use (see Table 5.3). Although the subjects were not able to

Table 5.3

The Effect of Form on Strategy Use

USED ONLY WITH NARRATIVE	USED ONLY WITH EXPOSITION	COMMON TO BOTH FORMS
Establishing the major character within the event	Establishing the common topic and adding the differences	Imaging
Cueing on plot: conflict and resolution	Cueing on repetition of a topic	Recall of selected events
		Summary and categorization of details
		Using key ideas or words
		Using question frames
		Using comprehension aids

explicitly describe the strategies they used, they were able to intuitively use the strategies and find the main ideas. Their knowledge of terms labelling the strategies was limited, and their inability to linguistically describe their mental operations hampered their explanations of their actions.

The ten strategies were closely related to one another and were used in varying combinations depending upon the internal structure and form of the text. The subjects' flexibility in strategy use may in fact be the key observation to be made. The reader negotiated with the author's organization of information, and instituted a number of strategies which best gave him the information he needed to find the main idea. When the writer imposed a narrative form upon the reader, the strategies most used were:

1. imaging.
2. establishing the major character within the event described.
3. cueing on plot - determining the plot and its resolution.

When the writer imposed an expository form upon the reader, the strategy mostly effected was establishing the common topic and then adding up all the differences described about the topic. The remaining strategies were used when processing any of the passages but "generalizing through categorization" was not effective for finding main idea implied in narrative. This strategy was used most effectively when main idea was implied in an expository passage. Also cueing on the multiple choice question only occurred when the task provided a question. The most important or basic strategy was that of determining key ideas or words. What ideas were chosen for their importance influenced what main idea would be produced. None of the strategies were passage specific.

Of further interest is that while the majority of subjects did not explicitly explain that the strategies used to find main idea for narrative differed from those used for exposition, they often demonstrated different strategy use for each form. For narrative, the plot received major attention. With exposition, the topic and the paragraph structure received attention. Whether these strategies would remain form specific when the form of the passage was not highly narrative or expository cannot be answered by this research. How students would process narrative expository such as Dylan Thomas' "Holiday Memory" would provide further insight into strategy use.

The next section describes what information subjects found important and why that information was so significant.

The Relevance of Context in Finding Main Idea

The second aspect of information processing related to finding main idea that was observed was the use of context. Research question 7 asked what context was used by the reader and for what reasons the reader found the information important. This section of the study reports how much of the context proficient and very proficient readers said they used, what information they found important, and their reasons for finding the information significant.

The first section reports how much of the passage context the 32 proficient and very proficient readers found important in determining main idea.

The Extent of Context Use

The subjects were asked to identify the information that was important in the passage by underlining it. An analysis of the results of this task indicated that:

1. almost all subjects interpreted this task in relation to the purpose of finding main idea, even though they were told to merely tell what information they found important when they were reading.

2. the information found important was related to the individual reader's needs; that is, what was important and how much was important varied from reader to reader.

3. most of the readers did cue highly on explicitly stated main ideas, and the agreement on what was important was greater in the short passages because most readers tended to use a higher percentage of the information than they did with the longer passages.

4. the contextual framework for interpretation consisted of information from the reader's background experience plus information from the text.

These overall observations require qualification. First, all subjects were aware that their purpose for reading was to find the main idea of the passage. Their explanations of why the information was important was related to main idea, and the task outlined by the researcher provided a frame through which the selection of information was made. In that this research did not examine how different purposes for reading affect the reader's perception of what information in the text is important, these observations will relate only to what information was considered relevant for the purpose of finding main idea. The results of an analysis of the underlined statements will now be presented.

First, the amount of information considered important varied from reader to reader, and consisted of key words, phrases, or sentences. Table 5.4 provides an example of the degree of variation in sentence selection for the short expository passages containing an explicitly stated main idea at the beginning of the passage. While some sentences were commonly cued upon, no one sentence was considered important for everyone. Figure 5.1 indicates the degree to which all of the readers found the information significant in finding main idea. As represented by Figure 5.1, fourteen out of sixteen readers cued upon the explicitly stated main idea. Three other sentences were considered important by at least ten of the readers. These sentences contained key differences. The statement "At first the chimp seemed to develop faster than Donald" was considered important by thirteen readers. Eleven and thirteen also related key differences: "But after many months, Donald began to catch up" and "And Donald learned to do something the chimp never learned to do - pronounce words and talk". These key differences explained the main idea presented in sentence one: "Baby chimps and human babies grow and learn in different ways".

While a general consensus would indicate that these four sentences provide a significant contextual frame for the reader, Table 4.8 indicates that only seven of the sixteen subjects keyed on sentences one, seven, eleven and thirteen. Less than half of the subjects completely cued on this internal structure.

Table 5.4

Important Information: "Chimps"

SUBJECT	SENTENCES CUED UPON	TOTAL/13
S1	1, 4, 5, 6, 7, 9, 10, 11, 12, 13	10
S2	2, 7, 8, 9, 11, 13	6
S3	1, 7, 9, 11, 13	5
S4	3, 9, 13	3
S5	1, 2, 3, 7, 8, 9, 10, 11, 12, 13	10
S6	1, 3, 4, 5, 6, 7, 8, 11, 13	9
S7	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	13
S8	1, 3, 4, 5, 6, 7, 11	7
S9	1, 4, 5, 6, 7	5
S10	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	13
S11	1, 7	2
S12	1	1
S13	1, 3, 7, 8, 9, 10, 12, 13	8
S14	1, 3, 7, 11, 12	5
S15	1, 2, 3, 7, 11	5
S16	1, 4, 5, 10	4

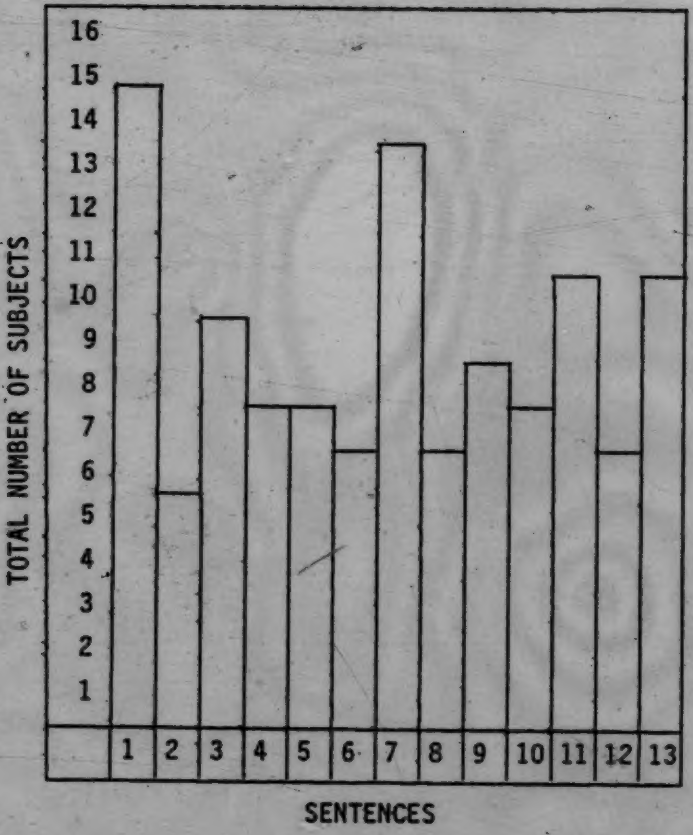


Figure 5.1

A General Overview of What is Important in "Chimps"

An analysis of the information found important in "The Faithful Dog" provided an interesting comparison. While "Chimps and Humans" represented exposition with an explicitly stated main idea, "The Faithful Dog" represented narrative which implied the main idea. While four key sentences were again identified, the sentences represented information different from that in "Chimps and Humans". All sixteen subjects cued on sentence nine: "Then the prince saw a huge wolf lying in a corner of the room". This sentence resolved the conflict of the story and cleared the beautiful hunting dog of any suspicions. The remaining three sentences provided information about the central character, the dog: "Sam loved his master, but most of all he loved the prince's baby son"; "The dog just lay down beside the baby and refused to move"; "The dog was scratched and bloody". Sentences two, four, and six all precede the sentence cued on by all subjects and foreshadow the dog's blamelessness and loyalty. They build excitement and represent the rising action which climaxes in sentence nine and resolves the conflict.

Figure 5.2 represents the commonality of cue selection for the sixteen subjects. Again, while sentences two, four, six and nine would seem to be identified as the crucial information in the text, only seven of the sixteen subjects cued on this combination. Table 5.5 reports the degree of variation in cue selection.

Both of these examples indicated that cue selection was highly personal. An examination of the responses given for the longer passages revealed even more variation in what information was considered

Table 5.5

Important Information: "The Faithful Dog"

SUBJECT	SENTENCES CUED UPON	TOTAL/11
S1	6, 7, 8, 9, 10	5
S2	4, 6, 7, 9, 11	5
S3	6, 9, 10, 11	4
S4	1, 2, 6, 7, 8, 9, 10	7
S5	1, 2, 4, 5, 6, 7, 8, 9	8
S6	1, 2, 4, 6, 9, 10, 11	7
S7	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	11
S8	4, 6, 7, 9, 10, 11	6
S9	1, 2, 6, 8, 9, 10	6
S10	1, 2, 4, 6, 7, 8, 9, 10, 11	9
S11	2, 4, 6, 9, 11	5
S12	6, 9, 10, 11	4
S13	1, 2, 4, 6, 9, 11	6
S14	2, 4, 9	3
S15	2, 3, 4, 5, 6, 7, 8, 9, 10	9
S16	1, 2, 4, 6, 9	5

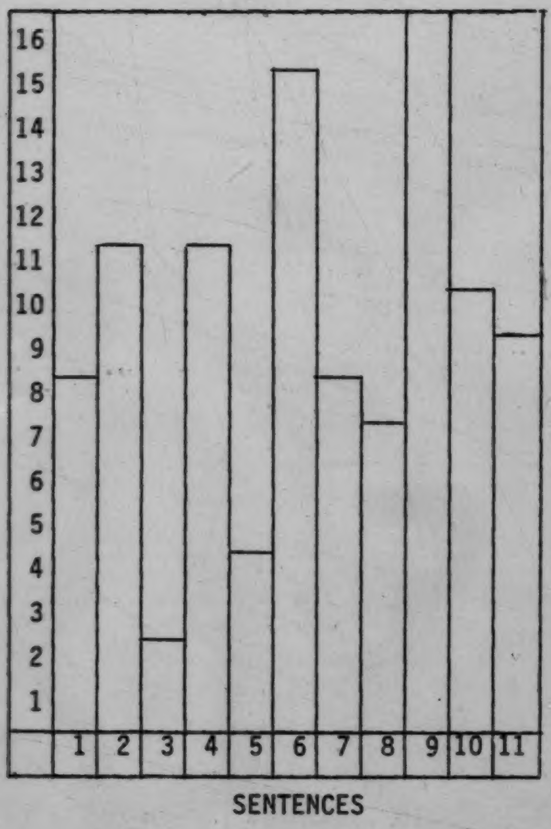


Figure 5.2

Commonality of Cue Selection, "Faithful Dog"

important. Table 5.6 provides a summary of the cue selections for "Mary Jo's Responsibility". While on the whole, more information was being used, each individual's contextual framework for interpretation was different. With the exception of subjects two and four, the sampling occurred from all parts of the passage, or at least from the beginning and end of the passage.

Figure 5.3 represents the commonality in cue selection for the

Table 5.6

Important Information: "Mary Jo's Responsibility"

SUBJECT	SENTENCES CUED UPON	TOTAL/68
S1	3, 25, 32, 38, 46, 51, 52, 56, 57, 58, 59, 65, 66	13
S2	4, 29, 32, 38, 44, 49	6
S3	4, 5, 34, 38, 60, 65, 66	7
S4	1, 2, 5, 8, 9, 27, 31, 44, 49	9
S5	1-4, 7, 8, 11, 13, 20, 21, 23-31, 34, 38, 42, 44, 46-49, 52-56, 59, 59, 62-66	38
S6	2, 30, 60, 61, 66	5
S7	1, 2, 4, 12-17, 20, 21, 34-37, 40, 41, 42, 49, 60	19
S8	1, 2, 5, 12, 13, 15, 16, 17, 20, 21, 32, 34, 35, 36, 38-42, 45, 49, 59, 60, 64-66	26
S9	2, 3, 5, 9, 10, 24, 25, 26, 29, 39, 40, 49, 60, 65	14
S10	3, 4, 7, 9-12, 25-30, 32, 34, 35, 36, 39, 40, 41, 44, 45, 46, 49, 50, 52-54, 58-60, 66	32
S11	1, 4, 5, 25, 32, 43, 44, 49, 50, 60, 65	11
S12	1, 24, 25, 26, 32, 44, 58, 59, 60, 66	10
S13	1, 2, 4, 5, 27, 29, 32, 41, 45, 49, 58, 59, 60, 64 65	15
S14	2, 4, 5, 15, 33, 35, 38, 39, 40, 42, 49, 60	12
S15	1, 4, 8, 9, 25, 26, 32, 35, 36, 37, 45, 46, 49, 50, 52, 56, 59, 65, 66	19
S16	4, 5, 7, 10, 63, 65	6

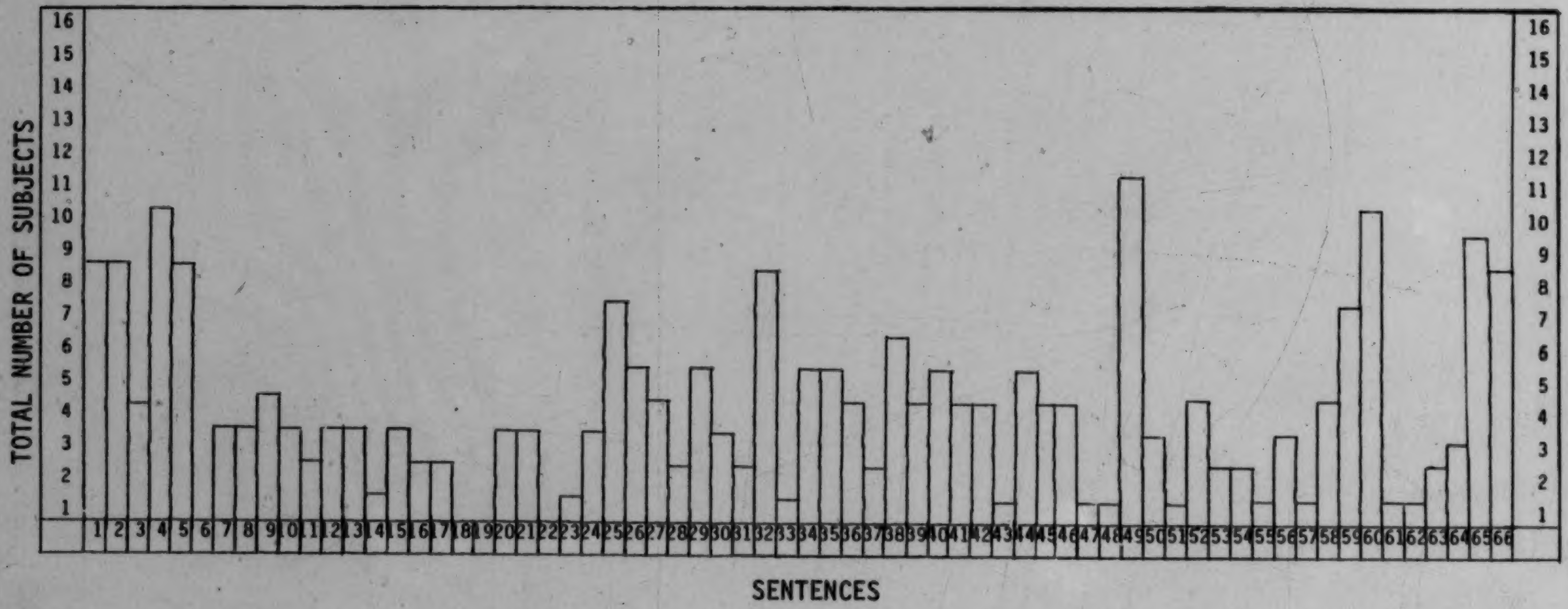


Figure 5.3

A General Overview of What is Important in

"Mary Jo's Responsibility"

sixteen subjects. Again the popular cues reflect a contextual framework related to the structure of the narrative form. Sentences 4, 49, 60, and 65 contained information on the topic of the main idea and on the resolution of the contlict. Sentence four mentions responsibility for the first time: "'A good dog owner must take full responsibility for her pet', said her father". Sentence 49 mentioned the word for the second time: "'I'm responsible', thought Mary Jo". Sentence 16 explained how she resolved her conflict: "'I'm going to sleep in the kitchen until Teddy is housebroken, and can sleep in my room', she said". Sentence 65 mentions the word "responsible" for the third and last time: "Mary Jo thought, 'I'm responsible' as she snuggled down on the old bed beside Teddy's bed".

As before, the collective cueing suggested that the most significant information in the passage related to the conflict of the story and its resolution, or at least to the key issue and its resolution. Yet only four of the sixteen readers cued on this combination of information. The resolution of the conflict did, however, seem to be a powerful attractor in narrative, whether the main idea was implied or stated.

While a later section of the report discusses the reasons for information being considered non-important, it will be mentioned here to illustrate the highly personal nature of cue selection. In the passage "Mary Jo's Responsibility", no reader selected sentences 6, 18 or 19. Two that were considered non-important were statements made directly by the author, and the other was a comment made by a minor character. All of the remaining 63 sentences were considered important by someone. An examination of the students' responses regarding why information was important revealed the significance of the reader's background in forming the actual contextual framework of interpretation.

In summary, each reader provided a personalized contextual frame upon which he built his interpretation. Context is not found in the text but is a product of the interaction between reader and writer (text). To judge what information in a text is important ignores the negotiating the reader carries on with the text. While greater agreement of what was important occurred for short passages, no such agreement was noted for longer passages. Lastly, the selection of what was important was related to the form of the passage and the reader's strategy use. How they relate will be reported in the next section which examines why information was considered important.

Why Information is Important

An investigation into the readers' reasons for designating text as important information provided insight into how he used his background knowledge and the text to create a contextual framework for interpreting main idea. His judgement of significance was related to the strategies he used in finding the main idea. For example, if he found the main idea by establishing the major conflict and its resolution, then he selected information that provided the initial incident, rising action, and resolution. If, on the other hand, the reader established the topic and summarized the major points, then the information he chose provided that information. A purpose for attending is implied. Clearly, an interaction between the reader and text occurs which presents a kaleidoscope of flexibility as the reader shifts from one perspective to another.

How the importance of information was related to strategy use is exemplified through subject 8's processing of the long narrative, "Taking the Plunge":

S8: I underlined "Betsy's best chance was freestyle" because it tells what the story is going to be about. And so that really sticks out in your mind. And then I underlined, it was in the fifth paragraph that I underlined "the starters shouted" etcetera until the end. Because you know that's action and all action parts really stand out in my mind because they're the most exciting. You keep reading faster and faster to see what's happening.

R: OK. Do you use the action in any other way? How does that action help you as a reader figure out the main idea?

S8: Well, the action helps me figure out / like, well, it makes the main idea clearer because you can just visualize that they're in a pool. "Betsy's best chance was freestyle".

R: OK. What about this part here, "Marti pulled ahead immediately" and to the end of that part you underlined? Why was that information important?

S8: It was exciting because they tied, they tied the other team and you know, it's exciting. You can just see, the author had written it in a way that you can just see the pictures in your head.

R: Is this a strategy you use to help you find the main idea?

S8: Yeah. And action, and action I guess is the best.

R: OK. Go onto this next one here, "'Coach', Marti said her face wrinkled with pain, 'it hurts'." Why was that such an important idea for you?

S8: Cause then you think, oh no what's

> going to happen. And you keep reading on through the story and then you just stop there. And, well let's say they excluded "'Coach', Marti said", well then he said, 'oh'. Well, they're going to win the whole thing and you won't bother reading it. And then you couldn't find the main idea.

While she cued on actions mainly, she began by determining what the story was going to be about. Then the information she selected was information she found exciting because it created suspense. She attained the main idea by selecting action which established the conflict and its resolution, and by picturing the action as it happened. This cueing on the internal conflict experienced by Betsy, regarding her teammates' responses to her, created a form of selective attention and actions were selected as they related to the conflict:

> R: "Betsy would be last swimming freestyle" etcetera. Why was that an important idea for you?
>
> S8: Because it's kind of exciting, you know, cause they're behind. She's got to catch up; she's got to swim her hardest. And stay ahead if they're winning. That's kind of hard cause when you're swimming you can't really stay ahead if you're tired.
>
> R: OK. How did this idea, "West Bay 34.7, Bay Side 34.9" help you as a reader pick out the main idea?
>
> S8: It was suspense. Oh, you just, oh oh, what did they get? What did they get? And then it tells you what they did before, but of course, they lost. But it's really exciting because you know then if you found out that, well, they lost, too bad. And when you keep on reading you see what happens, whether her teammates will kick her off the relay team or whatever.
>
> R: What about, "'I'm sorry', she began"? Why was that important information?

S8: Because you don't know what they're going
to say after that. Sorry, well you should
have been, I mean, you made us lose. Well,
that could have been what she said but she
didn't. And they were more concerned with her
time than they were with winning, which is
really important.

R: Why?

S8: Because, if you get your time better in
swimming, then you can bring it down lower,
but it was part of the main idea. Like,
it sort of tied in because her best chance
was freestyle and she got her time faster.
So she's better now.

R: OK. And why was the last line important?

S8: Well, they lost Marti and that other girl
said, "Well, we can't afford to lose another
champion freestyler". And that made what's
her name, Betsy, feel really better because,
you know, she lost it for them, so she
thinks. And how the girls are thinking that
she is the champion freestyler and it's
really gonna be her best chance at anything.

As illustrated the information selected by subject 8 was important because it enabled her to imagine the experience and relate it to her background knowledge, thus establishing the character's main problem and its resolution. Furthermore, it was information to which she could emotionally relate, the uncertainty of what was going to happen causing suspense.

While all of the readers presented a number of reasons why information was important in a given passage, a categorization of all of their reasons presented 17 common reasons. These are outlined below:

1. The information provided a summary (a) of the complete passage, or (b) of a paragraph or several paragraphs within the passage.

2. The information, because it was repeated throughout the passage, emphasized a particular idea.

3. The information generated or verified predictions made by the reader.

4. The information provided a base for making inferences about the qualities and actions of the major character.

5. The information related an experience similar to one remembered by the reader, enabling him to apply the personal insight he learned from his experience to the experience related in the story.

6. The information established the central conflict of a story or led to the solution of the conflict.

7. The information pictured a scene or action that could be imagined.

8. The information provided a turn of events different from what the reader predicted and required the reader to alter the prediction.

9. The information, selectively chosen, fulfilled the requirements of the general story schema.

10. The information created suspense and foreshadowing.

11. The information established the major topic or event.

12. The information provided descriptive detail.

13. The words provided important linguistic cues signalling cognitive organization.

14. The information was unfamiliar and the reader was interested in learning it.

15. The information provided cognitive dissonance for the reader because he could not interpret or explain it.

16. The information corroborated an option in a multiple choice

question.

17. The information was a main action.

Further explanation of these reasons will be provided in the subsections.

Providing a summary. In some instances the reader used summaries to generate the main idea. He attempted to "boil down" the details into general ideas which would represent all of the text, and then form a generalization from these summaries. If one statement already generalized the information, it was considered important. Subject 4 explained how he used both a sentence providing a summary of the main idea, and sentences which summarized individual paragraphs:

> S4: OK. I underlined "their tongues are the most important tool for getting food" because it gives you an idea of, well, it gives you the idea that tongues are really the most important tool for getting food for animals.... And then, "snakes use their tongues to find prey or animals to eat" - well, that helps you, well it gives you an idea of what you're going to read in the following sentences...
> Their tongues are most important to finding food, so it's true with the snakes because if they didn't have, like, their tongue, then they really couldn't eat. They really couldn't find their prey if they didn't have tongues.... Looking back over it, I guess it really doesn't have anything to do with the center of the story, but just for that paragraph it sort of made a little bit of sense to underline it, right? Because it gives you an idea, to me at least, that I'm going to be reading about like, other animals' tongues, like it won't go into what [the snake] looks like. It will still be talking about tongues, right?

This reader cued on information that enabled him to determine the general topic, and then cued on the major summary statements made about each animal discussed. After establishing the paragraph pattern in snakes, he predicted what he could find in the following paragraphs.

When this same subject came to the last line in the passage which explicitly stated the main idea that "Animals' tongues are designed to perform in a special way", he stressed that this statement was very important because "that's really what the whole thing is about - it tells how each tongue is related together".

A second reader who used this strategy and found information important for the same reason had difficulty linguistically describing the actions he undertook cognitively:

> S2: You just sort of focus in on just that one paragraph, not any others. And you go over that and then go back to the ones before and then just sort of, I don't know. It just combines together.

Intuitively then, readers can select such summary statements, but not be able to explain the basis for their selection.

A summary statement may also be important because it predicts the content of the passage or of part of the passage. Subject 19 explained the importance of summary statements that she located in "Chimps and Humans" in the following way:

> S19: Well, it tells you that - well, the first sentence is usually the main idea of the story, not necessarily, but usually. But it tells you about baby chimps and human babies grow and learn in different ways, which is - I think is the main idea of the story. That sets it off, like.... You think that they learn in different ways - then you know, usually, what the story is going to be about.

While a strategy that suggests finding the main idea by looking at the first sentence of the passage rarely works in processing a story, this subject used the strategy effectively with the exposition, but tended to call all passages stories. This inappropriate labelling of the expository passage did not interfere with her strategy use or her selection of information.

The predictive value of summary statements was constantly referred to by these proficient and very proficient readers. It seemed of primary importance that they were able to differentiate these statements from detail statements. Subject 8 stated: "That tells us what's going to happen in the story. And then all that is left is you fill in the details". Whether non-proficient readers can differentiate summary statements from detail statements was not researched in this study. A study of the reader's use of summary information would provide a valuable comparison of what information is considered important and why.

Closely related to summarizing a complete passage, but different in that the whole provides a generalized abstraction of the parts, was a third value of summary statements. A summary statement was considered important if it provided a category into which the other details fit. Subject 1 explained her use of the explicitly stated main idea in "Lily": "Everything had seemed to go wrong - the category they fit under... All these details here fit under that one". Subject 11 carroborated this reason for importance: "Like you read the whole thing and it tells you little categories that would lead on to these details. That's how I do it!".

Lastly, a summary statement was used to corroborate a conclusion the reader had already inferred. Subject 2 had underlined each bad thing that happened to the main character in "Lily" because it was another bad thing, and then explained: "She did everything wrong, and then in the last line it tells you that. It just said that she did everything wrong". This final general statement corroborated the generalization emerging from the repetition of detail.

Of particular significance was when this reason of importance was given by readers. The use of summary statements was used only for passages containing explicitly stated main ideas, except in the case of one subject who used this strategy with "Taking the Plunge", but found it ineffective:

> S8: Well, when these add up it actually just gets the main idea that she didn't want to be in the relay, but these do sort of add up to that, the main idea. I couldn't find very many but I did find some. The story doesn't really fit under these, but...

One structure in narrative lending itself to significant use of a summary statement, was that exemplified by "Lily". The passage stated three events which exemplified the main idea and emphasized the major conflict. The final statement provided a summary of the conflict. This overbearing organization was cued upon by almost every reader. Subject 12 explained:

> S12: When I was reading it says that she tripped over one of her shoes. That's one bad point that she had. And then she pulled a button off hew new sweater and that's a thing she did. And she spilled her glass of milk. She did three bad things just like in fifteen minutes. And then she says "What a day!" because it's so bad. Then she goes she would be without lunch today because she forgot it. So you know that she had, almost a bad afternoon also.

> And then everything had seemed to go wrong for Lily this Monday morning. It says everything had gone wrong.

Subject 5 referred to this statement as a "give away" statement:

> S5: Well, these, all these that I underlined they tell what happened in the morning and help me come to the conclusion. These tell what she had done in the morning and how, what had happened but what made her. Well, it had told what had happened and down here it talked, gave away the answer.

The highly repetitive nature of "Lily" may have encouraged this importance given to the summary statement in narrative. No one considered the use of summary statements in "Mary Jo's Responsibility", the long narrative passage containing an explicitly stated main idea. Expository passages which contained explicitly stated main ideas encouraged the selection of summary statements.

Repeated information. A second reason given for information being important was that the information was repeated many times during the passage, and if the author gave it such emphasis, it must be important. Often the important information was a key word.

Determining a key word through repetition of the word provided the reader with the topic of the passage. Subject 11 explained why information in "Tricky Tongues" was important:

> S11: Well, it says your tongue so it's about tongues. And then it says animals need tongues. It says, really, everybody needs tongues. And again, if it weren't for their tongues there probably wouldn't be anything to eat so you need tongues again.... Well tongues keep coming back and back so tongues are really more important things than any part of your body. They're really more important than you thought they were.

Once again, when the topic was established, the subject pegged other significant events to this central topic, or to the central conflict if the passage was a narrative.

The previous section reported that subjects cued heavily on the sentences using the word "responsible" in "Mary Jo's Responsibility". Reasons for finding this information important were explained by subject 21:

> S21: Cause in the very beginning she said "I'm responsible". And here she's saying it again and she's saying that she's going to keep it down and she's taking it, and still on the full responsibility bit.
>
> R: OK. And why was that important to you?
>
> S21: Cause at the very beginning she said she's responsible and the dog had been keeping her awake and squealing and everything and when she said "I'm responsible" it's her duty when she buys a dog that she's going to keep it quiet and get it housebroken and everything.

This reader used the repetition or the word "responsible" to establish it as the central conflict or problem discussed in the story. She related the events to this issue and developed the main idea.

The repetition of information in the text also allowed the reader to predict events in the story. Subject 13 cued on the major character's tactics to get what she wants: repetition. This reader used her experience she has had in similar situations with her parents to predict what would happen to Mary Jo:

> S13: First she wished it belonged to her and belonged I underlined because every time she sees a dog she said "I've got to have it, I wish I had it, I'd do anything for it".

R: Why was that important?

S13: I kinda thought, I kinda knew that she'd get a dog somehow. I just had it in my mind that she's probably get a dog.

R: And what about 'twice'? Why was that such an important word?

S13: She bugged her mother and father so many times. That kind of stuck out in my mind, she had to have it, she has to have it or else she'll get mad.

R: OK. How did that help you find the main idea?

S13: That helped me find the main idea because you see, she's asking her mother and father "I have to have it" and then you kind of know that she will get one. With that twice a week thing. Your mother and father just get fed up with it.

This repeated information in "Mary Jo's Responsibility" was considered important because, in one instance, it established they key conflict, and in the second instance, provided insight into the action of the main character.

The repetition of information, either in the narrative or expository passages, short or long, became significant because the author's stressing of the word or idea equalled importance.

Generating and verifying predictions. By far, the most significant reason for information being important was that it provided a frame for making predictions. The readers were all active predictors and every reason for information being important was tied to the making of predictions. These proficient readers, though, emphasized the need to evaluate their predictions and change them, if necessary. Information was, therefore, vital if it corroborated a prediction or contradicted the prediction, requiring the reader to change his perspective.

Subject 30 explained the use of the following information that he found significant when he processed "Keeping Cool":

> S30: Well, "some people cooled their drinks with ice or snow". It's kind of getting to you that it's going to be about history because it says something about ancient people.

This cueing on history enabled him to predict a significant part of the main idea on the basis of the word "ancient". Such predictions are, without doubt, dependent to a large degree upon the context the reader provides from his background experiences. Subject 21 explained how she related her background experience to key ideas from the passage in explaining what information was important in "Mary Jo's Responsibility":

> S21: Well, they wanted it. They understood that it has to be housebroken cause it was only a little puppy and that also leads to know they're going to have some things to do so that could be the main part of the story, getting the dog housebroken. Well, not really main, but it's a big part of the story because getting any animal housebroken it's usually quite hard because it takes a lot of responsibility and you have to - like, get it used to, like where it's going to be, where it's going to eat, where it's going to like go to sleep and everything. I don't know how to say this. OK. They probably took a lot of responsibility and well, it could lead up to problems because the dog might not do a lot of things that it's supposed to. And then the parents, they could not be dog lovers and in the first place even when they did pick out the dog, not even want to get it, so I was just thinking, one little thing and the dog might have to go back...

Through this interaction between text and experience, she generated the problem and established its resolution through a series of predictions. For her complete explanation, see Appendix E.

Information was important when it provided information the reader was familiar with and could relate to personally. The relating of this familiar occurrence with the background knowledge created a contextual base encouraging a prediction of what would happen next in the story. It seemed to encourage a reasoning by analogy. Given two similar situations, what will happen in the story is probably what happened to me or others in a similar situation. I can, therefore, postulate what will happen next. Such postulation, however, demanded evidence from the text that the analogy was still functioning, and readers determined whether the postulation held by attending to information which provided such corroboration. Subject 2 explained the importance of the first sentence in "Lily":

> S2: Well, I underlined this because it tells you that it's gonna, the rest of the sentence is gonna be about, probably about what her morning was like. It tells me that, well, I thought before about this sentence, about - that the rest was going to be about her morning - that tells me that my answer was right.... And the same with spilled her glass of milk. These sentences tell me that my answer, my conclusion is right. That it's going to be about her morning.

What statements were declared important by the reader because it verified a prediction was dependent upon what needed verifying for the reader. This point is illustrated through the explanations of subject 22 and subject 25 respectively:

> S22: Well, it proves that something went wrong

> and that the dog was loyal to come and show that - and it... And when it said scratched and bloody he must have fought something to protect it, to protect whatever, like the baby which he stayed from the hunt to watch.

> S25: That also proves that the dog is loyal; he came to meet his master. And it could have also proved that something went wrong, like a message by coming to master and saying something... by coming to the person telling a message.

These statements that provided corroborations were also used by the reader to prove the tentative hypothesis of what the main idea of the passage was. Subject 18 explained what information in "Chimps and Humans" he regarded important:

> S18: Because what you're trying to find is things that say baby chimps and humans grow and develop at different times and you're looking for things that prove that.

Such information was especially important if a reader had used a multiple choice question to help him determine the main idea. He then seemed to keep the answers provided by the question in mind, and to search for a match in the passage. If he found one, it corroborated his hypothesis.

Statements which proved predictions regarding the qualities and actions of characters were also considered important. Subject 18 regarded the sentence explaining the wolf was lying in the corner in "The Faithful Dog" important because:

> S18: It says the huge wolf was lying in the corner of the room. That's saying that he was wrong, the prince was wrong to accuse his dog of doing it. Because, he should have known that his dog was loyal and he really liked the baby, the dog. And he was going to hit the dog even and that wouldn't have been very nice. And there was a huge wolf in the

> corner and then he felt sorry that he
> accused the dog.

Such information seemed especially important if little explicit detail regarding the nature of the character was given, and the reader had to infer the qualities of the characters.

Proficient and very proficient readers were active predictors, but above all, they corroborated their predictions and hypotheses or changed them. Information which provided an analogy to their own experiences or knowledge base and allowed them to use their knowledge base to tell what would likely occur next in the passage was important. What information this would be, varied in relation to the experiences each reader possessed. Information substantiating these personal hypotheses was also regarded as important. In contrast to this kind of information was the information which provided a turn of events different from what the reader predicted. In that it required an alteration in the prediction, it was attended to very carefully. This reason for importance will be discussed in the next section.

Altering a prediction. When a reader's prediction is contradicted by the information he is reading, that information is attended to by the reader. If he did not alter his prediction, the main idea he would formulate would be generated from a faulty contextual base. The reader thus corrects his changing contextual base to accommodate the new information. This reason of significance was mentioned by most of the readers who processed "The Faithful Dog". The narrative, while it emphasized the loyalty of the dog, built suspense by withholding the presence of the wolf until the prince had almost beaten the dog. Many readers had, as a result, determined that the dog had harmed the child, and had to re-adjust this hypothesis when the information regarding the wolf was introduced. As a result, most subjects cued on this sentence and considered it very important. The sentence also provided the resolution to the conflict of the story. Subject 20 explained why he found the sentence significant:

> S20: Something about when the dog was scratched and bloody, I knew that the dog must have done something real bad and when I kept reading I found out that the dog was protecting the baby and he did so very successfully.

Subject 17 gave a similar explanation:

> S17: It was important to me because it would show that the prince thought that the dog had did it and he was really going to hit the dog. And he had left then he found out... he saw a wolf and he was really badly wounded, was frightened, and it helped me understand the the story a little bit more.

Altering their predictions became of vital importance in order to ascertain the main idea of the passage that dogs are loyal and faithful friends. The need to establish the qualities of the major characters, and sometimes their actions as well, in order to find main idea was another reason for information being important. This reason is discussed in the following section.

Inferring actions and qualities of major characters. When processing narrative, the readers needed to infer who the major character was and what was significant about his nature as he participated in a particular event. The following reasons for information being important was given when subjects 26 and 21 processed "The Faithful Dog":

> S26: It means the dog was very protective of and very smart and he didn't want the baby to get hurt.

> S21: I underlined "beautiful hunting dog named Sam". That sort of points out like, it gives you the dog's name and that he was quite a nice dog, a nice pretty. And then I circled, underlined "Sam loved his master but he loved the prince's baby son more". I underlined those two to show that the dog cared for the master and probably vice-versa. And the next one, the dog was fighting with the wolf and saved the baby and he was all scratched and bloody. Well, I imagined the fight and then in the front it says he cared for - like, the baby, the prince's son. So that means that he probably, he most likely fought for him to save him.

Information which hinted or indicated what qualities the character possessed were important in that they allowed the reader to generate inferences regarding the character's nature. Utilizing their background information to predict the main character and his problems and to interpret the character's actions allowed the reader to infer the conflict and resolution of the story.

Any information describing the characters was important, and the readers demonstrated a need to identify with a specific character rather than a general one. When subject 21 was asked why she found "Mary Jo named the puppy Teddy" in "Mary Jo's Responsibility" important, she replied:

> S21: Because if the author didn't do that, if you're reading the story it would just say - like puppy. Say, cause if you had a dog and you didn't name it you'd just say, here dog, or puppy. Well, maybe it would be a little bit easier to read the story.

and subject 27 for "The Faithful Dog" related:

> S27: Well, because if you didn't know that there was a dog named Sam, you wouldn't know probably what this is about, like there was a dog you know that, but like, it's

more specific.

Such specific knowledge about the character enabled the reader to predict the character's actions in a given situation. Subject 28 explained that if the reader only knew that Sam was a hunting dog, he might incorrectly predict that the dog hurt the baby. Given the second line "he loved his master, but most of all he loved the prince's baby son", the reader knows the dog will not hurt the child.

Likewise in "Mary Jo's Responsibility" the character of Mary Jo and of the puppy were important in understanding the bond of love that developed between them and set up the events of the story that followed. Subject 21 explained the significance of the information emphasizing this bond. When Mary Jo exclaims "Cute, they're the sweetest creatures ever born in this world!" the reader interpreted this statement as showing "that she had real love for the dog", and that this bond was important in her trials, given all of his demands. "He cried as if his heart would break" was important because "he wanted to see Mary Jo - he couldn't live without seeing her twelve times a night". This indicated that "she loved the puppy and the puppy loved her too." The bond helps predict that she will find the answer to her problem with the puppy and prove her responsibility.

Deciding which character was the major character in the story was also important for readers because they could then determine the conflict which centered around that person. Information providing this insight enabled determination of main idea:

> S10: I underlined "Mary Jo" cause she's the main character. And then I underlined "I'd rather have a dog than anything else in the world" because she really likes dogs

> and she'd really like to have one. And her father, that's another character. And she said "I would be responsible". That means that she would, she'd want to take care of the dog, like she wouldn't just say "oh I really want a dog" and then when she'd get it she would go outside and play and leave the dog in the house. She'd want to play with it.

Thus, information telling a character's actions, and the words spoken by these characters was important because they allowed the reader to infer qualities of character and the problems the character had to contend with. Subject 24 explained how she used information about the characters to infer the qualities and actions of the main character:

> S24: "'I think you're old enough to take care of a puppy', said her father." So that means that she could, that means that her father thinks, well, knows that she could take care of it and she is responsible for it.
>
> R: Now, how did you use that idea to figure out what the main idea was?
>
> S24: Well, then I knew that she, for sure, that she was going to get a puppy.
>
> R: And how did you know that:
>
> S24: Just like when it says "All right, Mary Jo, I think you're old enough to take care of a puppy".
>
> R: OK. Good. Why else is that information important to you?
>
> S24: I think because he knows that Mary Jo really likes puppies and also I think he'd like to get one too.
>
> R: You do? How come you think that?
>
> S24: I don't know. I think all people like animals.

R: OK. Go ahead. What's the next one?

S24: Oh, an exclamation mark, I think. And the next one goes "Let's go". I underlined it because I knew that Mary Jo was really excited about it.

R: OK. And why was that excitement important?

S24: Because she's been waiting a long time to get a dog and finally it's her chance to get one.

R: OK. Keep going.

S24: The next one is "Cute! These are the sweetest creatures ever born in this world". And she says it for excitement.

R: All right. Go to the next page.

S24: "He squeaked and cried, especially at night". That means that when he's all by himself he felt lonely; he wants someone to come talk to him.

R: And why was that information important for you?

S24: At the end of the story when someone is there he doesn't cry, when he's all by himself he wants...

R: And why is that important? How did it help you figure out the main idea? Can you think of anything? Does it relate in any way to another part that you've already read?

S24: I think so.

R: OK. How?

S24: Well, I think, like when Mary Jo said "I'd rather have a dog than anything else in the world". That means that she was kind of lonely for a pet that she could talk to.

R: OK. Good. Keep going.

S24: And the next one is "He awoke and cried as if his heart would break". And like, before he was lonely. "Mary Jo put an old toy dog in his bed with him. She hoped that he would think of it as a friend". But it didn't help.

R: Why was that information important?

S24: It was important because he knew that he couldn't play with it, well he could play with it but the toy dog wouldn't talk to him or anything. It just layed there.

R: OK. Keep going, the next one.

S24: "Mary Jo staggered sleepily from the warm bed to the kitchen a dozen times a night". It means that she really loved him.

R: And how does that help you figure out the main idea? Is there any way in which you can see how you used that information to help you get the main idea? And the information just before that that you read to me and the information just before that that you read to me?

S24: It means that she wouldn't be too sleepy and she wouldn't get angry at the dog and say "Oh, be quiet. I'm trying to sleep".

R: OK. Keep going.

S24: "She talked to Teddy". Even though she was sleepy and she sang to him. And "As long as she was there he was happy". That means that he really loved her. "As tired as she was Mary Jo could never feel angry with him because he was so joyful each time she appeared at the kitchen door and stepped over the table". It means that she really loved him too because she'd never get angry at him even when she was sleeping. "Mary Jo's mother found her asleep on the paper-covered floor". It means that she would stay with him all night so he would be quiet.

R: OK. And now why was that information so important?

S24: Well, it helps her get to the idea, and the idea helps me get to the main points.

R: OK. Keep going.

S24: "'I'm responsible', thought Mary Jo. 'I've got to think of something to keep Teddy quiet'." And then she thinks of the idea.

R: Why was that sentence there so important for you?

S24: Cause she thought she's responsible for him. No one else is except her. She feels that she has to do it and no one else.

R: OK.

S24: "It was an old folding bed". Meaning that she'll probably put it beside him and sleep by him.

R: And how did that information help you?

S24: That helped me know that she would really do anything for her dog, that she'd sleep by him and talk to him, she'd sing to him, even though she's tired. She'd just about do anything for her dog.

R: OK. Go onto the next page.

S24: She's going "I'm going to sleep in the kitchen until Teddy is housebroken and can sleep in my room, she said". And that proved that she would do anything for her dog.

R: OK. And then, what did you have next?

S24: "And it did. Mary Jo thought, 'I'm responsible' as she snuggled down on the old bed beside Teddy's bed. And Teddy slept without crying once all night long".

R: Why was that information important for you?

S24: It proved that he loved her and as long as she was there he didn't feel scared and he knew that someone was there beside him and he felt safe and so did she.

R: So what did you say the main idea was?

S24: Teddy, or any dog, needs love.

While the reader chose "Teddy, or any dog, needs love" for the main idea, she seemed to have understood Mary Jo was the main character who had to prove her responsibility. The reader, however, cued on "love" as being the major topic, and "any dog needs love" seems to account for part of her interpretation but she did not cue upon the central conflict of the major character. Yet, her explanation indicated that she understood the story. She had difficulty providing a single sentence summary of the essence of the story.

The qualities of the major character were, nevertheless, significant in that it cued the inferring of extra information from personal experience. In the next section, personal experience is also significant, but in a different way. The reader uses a cue from the story to recall a specific experience he has had. He then reasons that the insight he has learned from his experience is the insight to this story.

Cueing personal insight. While the subjects commonly related their background experiences to the text, only two subjects did so by explicitly relating an experience that happened to them. Subject 18 explained the importance of a line "I want a dog. I want a dog." in "Mary Jo's Responsibility".

S18: The first thing I underlined I found that... to the girl that she asked her mom and dad "I want a dog. I want a dog" or something like my baby brother that has to have it or else he'll just cry or get mad.

Subject 21 stated:

> S21: Well, usually when you really, really want something, like some new clothes or a toy or something you keep on asking about it and you, sometimes, not always, you end up getting it because you want it so badly. Then, "At least twice a week, usually at the dinner table" she asked about a pet and at least twice a week also proved that she wanted one and at the dinner table well, I know I ask for lots of things at the dinner table cause that's when everybody's there and you can get everybody's opinion and then everybody will stay there to finish their meal and you can keep on talking. And, she often read the ads in the classified section under pets which she read out loud to her parents. She was reading about pets cause she wanted one and she read them out loud to her parents because her parents are who she's trying to convince in getting a pet because, well, most things, like lots of kids don't understand this but, when you want a pet or something, there are lots of responsibilities and your parents are with them most of the time. And they have to pay for most of the stuff that a dog could damage. Good dog owners must take full responsibility for their pets.

Her understanding of the main idea was based upon her own understanding that caring for pets demanded alot of responsibility. She used very little of the context provided by the passage.

Establishing and solving the conflict. This reason for information being important was given only during the processing of narrative. Many of the subjects declared their use of information in this way and understandably so, for using the central conflict to establish main idea was declared as a strategy by many of the readers.

Subject 3 explained what information she found important in "Taking the Plunge", and told why:

> S3: They seemed important because it tells you

> that she doesn't like relays, but she may have to swim in it anyways even though she doesn't like it. This the West Bay Rockets, I underlined that because it tells you that it's probably going to be, it's going to talk more about that particular team. I left all of this out because it wasn't important. It was important, sort of, but it didn't help me find the main idea. Here, "Me swim in the relay" I underlined that because up here she might have to if she doesn't swim in the singles then she'll have to even though she doesn't like it. And down here she does have to, right. "The gun fired and Janet was off". It tells me that the relays have started and Betsy would be in it. But the girls from West Bay, it proves that I was right. They were going to talk more about the West Bay Rockets. Here, "climbed up on the block ready for action", I should have underlined "Betsy" too. That tells me that she does have to go through with it. "Betsy dived in". It tells me that she did go through with it. "She had made it". That meant that she had successfully gone through the relay. And I didn't underline anything else because it sort of just gives you a summary, in a way, of the paragraph.

Subject 3, first of all, cued on information which she believed provided the major conflict and determined the major character. Then she selected the significant actions relating to this conflict, and finally established the resolution of the conflict.

Narrative passages encouraged the use of determining the conflict of the major character. Expository passages encouraged the use of information which allowed the reader to determine the topic. These two reasons of importance are closely related, but the strategy of the reader changes. Information used to establish the topic will be discussed in the section "Establishing major event or topic". The next section will continue the discussion of narrative-related reasons for importance.

Illustrating story schema. One subject explained that he was aware of the general story schema and always selected information that would illustrate the schema:

> S22: Oh, that kind of helped...that sentence helped me see a girl that probably would get a dog, something will happen and at the end everything would work out right.
>
> R: OK. So that was kind of a strategy you were looking for then; that was a form you were looking for.
>
> S22: Right.
>
> R: All right then. Look at the next part, "I would rather have a dog than anything else on earth". Why did you underline that? How did that information help you?
>
> S22: That helps me with that first one. She's asking her dad, or her mom that she has to have a dog. And that just helps me picture that in my mind, too.
>
> R: OK. Let's go onto the next one, "I would be responsible". Why was that important to you?
>
> S22: All people say that when they're having something and sometimes in most stories, something wrong happens and that just... that was one of the strategies I was thinking about.
>
> R: Could you explain that strategy a bit more?
>
> S22: Something's going to happen, you just know that something's going to happen with just that sentence "I would be responsible".

He also chose information that helped him picture the event. This kind of information seemed to be selected when the reader used a strategy of imagining the experience. This reason will be discussed in the next section.

Imaging. Information that helped the reader imagine or picture the experience was used by the reader to relate to the experience. Subject 28 explained:

S28: That helped me, like I was picturing in my mind that everyone comes down the stairs and they're tired and she had to do something about it. Remember that sentence that said "I'm responsible" so that tied in with that one.

R: How about that last one you underlined there: "I'm responsible"? Why was that important to you?

S28: Because everyone was starting to look tired and they were saying "Oh, why do we have to have this dog now". I kind of knew that something would happen; she'd go somewhere and figure out a solution to keep this dog quiet or break him in.

The same reader found information which provided a picture important when reading exposition, as well:

S28: That first paragraph was fairly important because you kind of picture in your mind that the story is going to be something about, had to be something about ice or water or something of that nature.

R: OK. So it gives you the topic?

S28: Yeah.

R: All right. Well, why did you have "ice through the summer?" Why did you underline that?

S28: Well, save this ice through the summer; it just kind of, that made it something like a story to me to help picture it in my mind that it's going to have, they are going to have some problems saving this ice through the summer and you just can't wait to see how they did it. OK, that helped me a bit.

She used her imagination to re-create the experience and looked for material which gave concrete details.

Creating suspense and foreshadowing. Only with narrative did the reader key on events which caused uncertainty or which foreshadowed coming events and complications. These events served to involve the reader emotionally, causing excitement:

> S1: Well, OK, he laid there. OK, the dog named Sam really loved his master and the master's baby son and then he lay down and refused to move. So it kind of tells that, well, it doesn't tell too much right there, but it says that well, it's kind of like you build up to the climax because it's telling that something is going to happen because like, either the dog was dead, that's why he lay down and refused to move or he thinks, the dog thinks something is going to happen to the baby or something like that.
>
> S24: No, well it's sort of exciting there where the dog was scratched and bloody like you don't know what happened yet but then when you read on it tells you.
>
> S22: Something exciting is coming up there.... I was surprised cause, I just got in the baby's room and then the master comes from his hunt and sees the dog all scratched.

Each of these examples illustrated a common cueing on the climax of the story directly before the resolution. This high point of suspense provided a reason for the importance of the information.

In "Mary Jo's Responsibility" details which foreshadowed future events were attended to by readers. Subject 29 explained:

> S29: She said "If I'm going to get one I'd be responsible for it. I really want this dog and you just leave it up to me. You'll see." And you kind of know that something will happen.
>
> R: How do you know that something will happen?

S29: Later in the story she does get a dog
and that responsible thing.

R: What does it do for you?

S29: Keeps you in a little bit of suspense when
that dog's yelping that how's she going
to figure it out.

The uncertainty that causes cognitive and affective involvement was also referred to by subject 4 who related the pace of his reading to the importance of the information:

R: I'd like you to look at the ideas you
underlined and try to tell me why these
were so important to you as you read
them. Like, you've got the first one
there, "She hoped that she'd swim in a
single event, not one of the relays,
because she would hate to make the
relay team lose". Why did you find that
information so important to you?

S4: Well, it was a clue because, like you
know that something is going to happen
if they put something like such a little
detail like that in. And so, it sort of
helps you to understand and then you
could, well, then when you read it you,
and the fact that I underlined, that
means I read it slowly and when you read
it slowly and when you get down here
you understand what's happening.

If the contents were important, he slowed down and carefully attended. In this case an insignificant detail became important for him because "you know something is going to happen if something like such a little detail like that is in". What might seem to be an insignificant detail may be very important if the writer stresses it or includes it.

The emotional involvement referred to in the processing of narration did not seem to be a significant factor of importance for expository passages. The reader was more removed or distant. This may be due to the fact that the expository passages were informational in nature. Had they been persuasive or argumentative forms of exposition, different results may have occurred. Further research is needed to assess the importance of context for involving the reader emotionally as the internal structure and intent of the passage changes.

Establishing major event or topic. The previous section on strategies contained the explanation of the use of establishing the topic for expository passages. Subject 28 explained what information was important in helping her establish the main idea for "Keeping Cool":

> S28: Well, ice cold water. They're talking about ice; ice cold water has something to do with ice. And then ice or snow, that ice and snow are usually the same thing. And so they're talking more about ice and stuff and then it says ice again and snow or ice. And the problem is how to save the ice through the summer and they talk about the icehouses and so that kind of helps you to figure out like, how they're going to use it cause we already know about icehouses. And then here it says icehouses on the shore and icehouses and then. And then where they say about wood and stuff. They couldn't use that because of the sparks and it would set it on fire. So they put, they used brick houses. And maybe if people have icehouses still today they'd probably use brick now.
>
> R: OK. Good. Now, let's have a look at maybe how you put that information together to figure out that main idea. Can you tell me? You see these things underlined all the way through and you have ice mentioned several times. How did you relate all that information to get the answer you got?
>
> S28: Well, it talks about ice and you know it's going to have something to do with ice. And then it has a problem as to how to keep it from melting. When you use ice and keep it from melting you know it's going to be about icehouses because we've heard of them before. And so kind of the icehouses or ice are going to...

Subject 23 explained why the first thing he underlined in the same passage was "ice-cold water":

> S23: Well, it gave me an idea of like, it was going to talk about water and how ice-cold it, talk about ice and stuff like that.

Subject 11 also considered information important in "Tricky Tongues" if it provided the topic:

> S11: I underlined everything that had to do, well, first I underlined that cause that helped me find the main idea because I knew it was about tongues. And from then on, once I read this first one then read the whole thing meant like, I underlined "animals' tongues are designed to perform in special ways". Which so I had to, if that was my main idea I had to underline everything that showed how an animal's tongue helps and so that's what I did. But this one here about your tongue, the human tongue. I underlined that because it was the first main clue that sort of helped me get that it would be about tongues as the main idea.

Again subject 29 used the same strategy in interpreting "Chimps and Humans" and found information which stated the topic important:

> S29: OK. The first thing I underlined was "a baby chimp at home with his own baby son Donald". OK, here I'm putting this down cause it helped me find the answer because this is what he's doing. It's telling what he's, the experiment he's going to do. He's going to raise the baby chimp exactly like his own son. And that's telling what the story is going to be about. How it's going to be.

In one instance, the reader underlined only "ice-cold water" for the complete passage. When he was asked why only that part was significant in the long passage, "Keeping Cool", he replied:

> S30: Well, that tells you that the whole story - that ice - sort of mostly talked about, is

> ice-cold water and ice. And all the rest is just things that people in different parts of the world do about cooling their drinks and so on.

The establishing of the topic for expository articles was noticeably different from establishing the major character and central conflict for narrative.

Attending to linguistic cues. The use of linguistic cues to set up an organizational pattern of incoming information was mostly given as a reason for attending to information in "Chimps and Humans". The words "same" and "different" set up a comparative structure for the reader. The following sample exemplifies the use of the comparative analysis cued by "different":

> R: Can you tell me why this information is so important to you? I noticed that you've got "chimps", "babies", "learn" and "different ways" all underlined. Tell me how you used that to help you.
>
> S26: OK. Chimps and babies learn in different ways. OK. It tells that, OK, they're comparing the chimpanzees to the babies and they compare that throughout the whole paragraph and it tells that they learn in different ways. It tells the different ways that the chimpanzees learn rather than the baby and then what the baby learns that the chimpanzees can't learn.

Whereas subject 26 cued on only the differences, subject 28 attended to both "same" and "different":

> R: OK. Tell me why "treated same" was important information.
>
> S28: Because that was part of the scientist's sort of research study thing. Like he's going to treat them the same and do everything the same with them and see which one develops faster.
>
> R: OK. Now, why did you underline "first",

"chimp", and "developed"? Just, OK, go ahead, then and just explain to me from here on in how you used that information you underlined to help you.

S28: OK, I had "first chimp developed faster" because it tells, OK, in the first sentence it says chimps and babies learn in different ways, so it sort of backs that up and says that the chimp developed faster. And then first, it's still talking about the chimp and it says "first to follow orders" and so that's part of for developing faster. And it says "she was stronger and she used her hands and fingers better". And then after Donald, the little baby guy, he caught up and he was the first to draw instead of scribbling and he learned to pronounce words and talk and so it tells that they did learn in different ways and they learned different things, too.

R: And how did you use that when you were reading? Did you use it to help you figure out what the rest of the story was going to be about?

S28: Yeah.

R: OK. Let's go to the next one. "The two were treated the same". How did you use that to help you?

S28: Well, like it just tells you that they weren't treated differently; they weren't put in separate rooms or something and playing with different toys and eat different stuff.

R: Why is that important?

S28: Well, it's important...the information is important because they were the main things in the passage, like when it said that the baby and the chimp grow in two different ways and when you come down here it tells you how they start growing differently like if they were both treated the same when they played with the same toys and tucked into bed at night and then one of them started developing faster.

It shows which one could adapt better and
then Donald, then the baby boy starts to
catch up and he gets better so that means
that the baby chimp starts, gets developed
sooner and starts doing things but then
the human baby can catch up alot better.

R: OK. Why was this sentence so important for
you? The first sentence.

S28: It gave me a clue to what the main idea was
and it sort of helped me cause then I kind
of knew what the main idea was cause it
said that there were two different ways
that baby chimps and human babies grow so
that helped me in finding the...

The cueing on linguistic cues such as "same" and "different" indicated that such words used by an author were key because they caused the reader to adjust his frame of thought to accommodate a particular reasoning structure. Again, the effect of explicit organizational design used by writers may affect what information is considered important. If these key words are ignored, the reader may misinterpret the information.

New learning. If the reader found information he was unfamiliar with in the passage, he either considered it unimportant and ignored it, or he wished to learn the information and attended to it. The following samples exemplify this reason for attending to the material:

S22: "Was driven across the frozen part of the
water". That, I just found that important
how they would, how the United States kept
their ice. I never knew about that but
so that was, I found that was pretty
interesting, that stuck out in my mind as
one of the parts that like how they got
the ice.

S18: Well, OK, the day is hot and this person
wants a tall glass of ice-cold water.
And then it talks about, like how before

> they kept it cold. And well, you don't really think about how far the ice cube went back but then you, like I underlined that because then it is kind of interesting to think how the ice cube did come.
>
> S30: Then I know that they didn't just find a piece of ice and hack it to pieces just using a drink. They had certain measurements they used. And then I underlined "horse pulling a cutter" and "it was driven across the frozen parts of the water" so I knew how they cut it and that was sort of important though, well they don't have lots of things that we have now and you just want to know how they did it. Like, they had it a certain thickness; it would be kind of hard to do it by hand.

Such attending to new information may have occurred merely because the reader was interested, or because he had to understand the information in order to extract the main idea. The reader's attending to new information also questions how much of the context from the text a reader uses. He may resort to depending more highly on the context of the passage if the information is new to him. How familiar and unfamiliar passages affect what the reader finds important in the text needs to be determined by further research. What the reader allows the writer to bring to the context of the reading act may be determined by the reader's background knowledge.

Couldn't interpret the information. When new information could not be interpreted it provided cognitive dissonance for the reader. The reader found such information important unless he chose to ignore it. Subject 20 explained:

> R: "The dog just lay down beside the baby and refused to move". How did you use that information?
>
> S20: Kind of hesitantly, you know, cause I didn't quite understand it until I read further on.

R: What didn't you quite understand?

S20: Well, why the dog wouldn't move when it's, you know, the prince's dog. And then when the prince came, no, one day the prince called for Sam to go hunting and the dog just laid and then later on it says about the wolf just laying in the corner with a wounded leg. Oh, previously the dog sensed some kind of danger coming to the baby, so he stayed.

He kept the information in the back of his mind as he continued to read until he found information which explained it. Reader 3 did not sustain such information. Rather, she rejected it. When processing the passage "Finding Out About Words" her main idea centered on the word "breakfast". She later explained that she did not understand the information on spoonerisms so she just left it out. Such a strategy was inappropriate for she neither brought context from her background knowledge nor from the text, therefore truly ignoring the context.

Cueing on multiple choice stems. Readers, when given the task of recognizing the main idea by choosing the most appropriate answer stated in a multiple choice question, often chose a strategy of re-reading to determine the best option. When this occurred, their explanations of what material was important related to an altered purpose for reading: finding the best of four alternatives. This is illustrated in subject 19's explanation:

S19: Well, because the dog hurt the wolf and the wolf was now frightened of the dog.

R: Why was that important to you? How did that help you?

S19: Because it was one of the answers.

What information was considered important was altered by the purpose the reader had for reading, and the task. The key quality which emerged was the flexibility of the reader. He needed to alter strategies and his attention to information according to his needs, purposes and tasks.

Selecting main actions. Sometimes the readers either were not able to or did not choose to explain in general terms why the information was important. Rather, they explained its importance to the information in the text. When asked to tell why the parts she underlined were important in "Taking the Plunge", subject 7 replied:

> S7: Well, they had three events and the first one the other, the Bay Side team knocked them out easily. They won the first thing easily so they needed to catch up. And then she was thinking because her, she knew that there was only one other player who could do the freestyle and it was her. And then Betsy would be the last swimming freestyle and so then they'd know who was swimming it. It would be hard to accept. And catch up if they were behind, or stay ahead cause she knew how much, well, they had always tried to stay with them and win. And then when she stopped and heard the final times, found out they'd lost. And she said, and she thought she would, she lost on the team. And then the team cheered her by going the last time she went she got 38.2 and this time it's 34.9. And that was the best time and then she goes "Marti would have won it". And then they go "35 seconds she got". And then they go "We can't afford to lose another champion freestyler".

What she seems to have done is select the main actions which occurred and relate them to the conflict felt by Betsy and the resolution of the conflict. Her answer exemplifies her selecting of information on the basis of its relation to the conflict. Likewise, subject 2 explained her reasons for selecting information:

> S2: Well, she didn't like relays because she

didn't want to, want to, well, she didn't want her friends to get mad at her for losing in the relay team and she didn't, well she wanted to swim in the relays and she didn't want to swim in the relays. But what I used for...

R: OK. But let's go to the next one. "Marti would swim freestyle in the relays, too." Why was that important information for you?

S2: Well, it helped to tell what they were doing in the story. It does, it sort of, it's half and half. It's sort of main and sort of regular.

R: OK. And what about "Marti usually brought the relay team to victory"?

S2: Well, Betsy was feeling down because she felt Marti was better at it and it was getting her down.

R: OK. What about there: "Oh, no, not when it's this close"?

S2: Well, she didn't want to swim but it shows that if she didn't want to swim the relays because she thought she'd lose it for them, she'd lose it for the team.

R: All right. And go onto the next page then. Why did you underline "would have to catch up if they were behind or stay ahead if they were leading"?

S2: Well, she didn't want to be, didn't want to be the last person to swim because she'd have to, the whole team was on her hands; if she was off, the whole team would lose and she didn't want that.

R: OK. And why did you find this important information: "Betsy felt tears welling up in her eyes"?

S2: Well, I imagine she was feeling that her friends would get down on her because she lost the race for the team.

R: OK. Now, just tell me if you can, generally, how you used that information to help you.

find the main idea. What was it you did?

S2: This, actually added up to thinking that she didn't really want to race in the relays and that, but it shows that the, added up mostly to be not any of the others.

The details from the passage seem to have been selected because they established the main event, and the major character's conflict. Because she had difficulty expressing what the main idea was, she could not explain how she used the information to determine the main idea.

Requiring descriptive details. Occasionally, information was not important because it related to the main idea but because the reader required the information to know exactly what was going on. Subject 2 was a swimmer and she attended to information others considered non-essential in "Taking the Plunge":

S2: "Then she swam the three strokes without a break."

R: Why was that important?

S2: Cause it tells you how she breathes.

R: Why do you want to know about how she breathes?

S2: Cause usually most people don't take three strokes without a breath. Only take two.

R: So how did that help you as a reader then?

S2: Cause it's sort of weird. Because usually people take two strokes without a breath, instead of three.

She seemed to use this information to establish the competency of Betsy, but could not explain why it was important to her. This reader also keyed on the length of the race and the stroke the girls were swimming:

> S2: If you just said they were just going to swim you don't know how they are going to swim, if they're going to swim 50 laps or whatever. Because there are other kinds of swimming. Like, kind of like back stroke and stuff like that, but she was swimming freestyle.
>
> R: Why was that important to you? Why was it important for you to know the way in which she was swimming?
>
> S2: Because it might have been anybody. Like, in case they didn't tell you that she was swimming.
>
> R: OK. Now you've got "swim in a single event" underlined. How did that information help you find the answer? Why was it important?
>
> S2: Because she was swimming and she wanted to swim in a single event.
>
> R: All right. Why did you underline "announced" and "freestyle single"?
>
> S2: When the coach announced, it's important that you listen when the coach announced freestyle swimming, freestyle single swimming.

She did not clearly verbalize why she found the information significant.

Details also seemed important when the reader needed to learn something he did not know. Subject 20 attended to detail when he read "Keeping Cool" because he was interested in finding out how ice was taken from the ponds:

> S20: Well, this tells how they got the ice out of the ponds. They took horses and with cutters. They had sharp wheels that would cut the ice and then men would take axes and would like, chop the ice and cut it with and they'd float it down the river, float it down into icehouses on the shore.

The reader was able to picture the event by attending to the description provided by the details. When the experience was new the reader attended to the details to imagine it - the context in the passage was heavily relied upon.

Summary. Generally, the reader's selection of information depended upon his knowledge, his purpose and his tasks. For each reader, a personal combination of cues from the passage was selected and related to his personal experiences to determine the context for the moment. The context used to interpret the passage changed continually as new information was read and related. Context cannot be said to be on the page or static. Flexibility of the reader was essential in interacting with the text, in forming a base for interpretation, and in altering strategy use to find the main idea. What information was important sometimes depended upon whether the passage was narrative or expository (see Table 5.7) and upon whether certain strategy use was invited by a heavily imposed organizational structure outlined in the text.

Information was considered important if it provided a summary, generated or verified predictions made by the reader, provided a base for inferring qualities and actions of major characters, provided the central conflict or its solution, pictured a scene or action, related an unexpected turn of events, created suspense and foreshadowing, provided descriptive detail, or gave a main action. It was also important if it was repeated many times, related to a personal experience or the reader, or established a major topic. Linguistic cues as signal words for cognitive organization were noted, as was unfamiliar material. Finally, the reader noted any information which corroborated an option he chose in a multiple choice

Table 5.7

Form As It Determines the Commonality Between Strategy Use and Reasons for Informational Significance

FORM	STRATEGY	REASONS FOR INFORMATIONAL SIGNIFICANCE
Narration	Establishing the major character within an event	Provides a base for inferring character
	Establishing the plot: conflict and resolutions	Establishes the central conflict or leads to the solution of the conflict Creates suspense and foreshadowing States a main action
Exposition	Establishing the common topic and adding the differences	Establishes the major topic or event
	Cueing on the repetition of the topic	

question.

Because readers referred to "key words or phrases" as they explained what information was important, they were asked to identify only the words they believed were crucial in their formulating of the main idea. A summary of the responses given are reported in the next section.

Using Key Words

When asked to circle only the key words that aided the most in finding the main idea, the subjects' selection of information revealed a chunking process at various levels of condensing. Three patterns were observed:

1. The subject circled most of the information he had previously underlined, and insisted that all of the information was crucial.

2. The subject circled condensed portions of what he had underlined.

3. The subject circled words which had not previously been underlined.

Examples of each pattern is located in Appendix F.

An examination of the circled portions of the text revealed a condensing of the textual information as is exemplified in the responses given for "Chimps and Humans":

S23: chimps babies treated same stronger
never learned to do pronounce words and
talk

S26: chimps babies different scientist
chimp son same toys talks tucked bed
time chimp develop faster after Donald
catch up

S19: develop faster stronger catch up

S20: treated first catch up talk

This reduction to the basic action related in the passage was also observed when long texts were processed, as noted in the responses to "Tricky Tongues":

S6: chew swallow food talk have food most
important took chew swallow find prey
animals picked up smells fastened at
back of mouth fastened at front moved
into striking distance zaps out its
tongue captures the prey with the sticky
tip jabs into the next with its very long
tongue gluelike saliva new coating
everytime animal draws its tongue back
in mouth curl their tongue around leaves
pull the leaves from trees zap it stabs
its prey rough feels bumps lick meat
teeth comb animals tongues designed
perform special ways

S5: very important to you

These responses, though, reflected the variation in the assessment of what information was really crucial. Subject five cued only on the tongue being very important, while subject six provided a condensed overview of all of the actions which were described in the text.

Why the information selected was considered so crucial was explained by the subjects. A categorization of their reasons revealed five major reasons:

1. the information repeated the subject or the statement made about the subject.

2. the information contained the potential for predicting or substantiating predictions.

3. it formulated a picture.

4. added together, the information provided a summary of the

major actions.

5. the information helped the reader to remember.

These five reasons were also given when subjects were asked to explain why information in the text was important, and again, reflected strategy use. While category five had not previously emerged, it may be a significant reason for finding key words or main ideas: the information helps the reader to remember.

Illustrations of the responses found in each category will now be given.

Repetition of the subject. For expository passages, the repetition of a key word throughout the passage signified the topic of the passage. Subject 7 circled tongues every time it appeared in the passage "Tricky Tongues" because "tongue keeps coming back and back again":

> S7: So all the time tongue keeps coming back, keeps saying that so all the time you just look and its tongues. So you know it's going to be about tongues. And then at the end you know the main idea right away if you just look; it's about tongues.

The same reason was given by other subjects for "Tricky Tongues" but also for "Keeping Cool", another expository article:

> S28: OK. I circled mostly ice and snow because they're talking about the ice and they mention it so much that like, ice after ice and stuff and so you know they're talking about the ice and that's what they're mostly talking about. And icehouses and on this page they mention icehouses several times so you know it's going to be about ice and the icehouses.

While the subjects also identified a key word used in the narrative passage "Mary Jo's Responsibility", the reason for the significance was slightly altered. Subject 18 related its significance to the conflict of the major character:

> S18: It was mostly words that say she was taking a responsibility. Mostly, words that say she was responsible and everything.
>
> R: I guess that was a really key word for you. And why was that such an important word?
>
> S18: Well, in my answer I said she was going to take the responsibility and such a hard thing to do. And for that answer I thought for responsible she said she was responsible, she was going to take care of it, going to stop it from crying and everything and it's going to be a hard job, so.

Therefore, the subject was identified through its repetition, but in the expository passages it represented the topic and in the narrative it represented the conflict. This reasoning corroborated the underlying differences in processing expository and narrative passages.

The summary provides a story. The subjects who gave this reason used the word "story" indiscriminantly. Their reasoning suggested that a story meant a summary of information. Subject 2 explained how she added up all the circled information to create a "story":

> S2: Well, because it's important things because if you put them all together you get a story out of it.
>
> R: A story? What kind of story?
>
> S2: Like, about the tongues.

Subject 30 also referred to the strategy of adding up the main words:

> S30: That was sort of the main words for the story because that's what the story was all about to save ice through the summer. Well, like it was with the underlined sentences. I just threw them all together.

A similar summarizing of actions occurred with the narrative:

> S1: She's saying, like she had been a couple of seconds behind and she didn't want to, like she was getting sad and she would be mad at her. But then when she says, she started to say that she was sorry to all the kids on the team they started telling her that how good her time was and telling her that she beat Marti's time and trying to cheer her up.
>
> R: OK. How did you use those words to help you find the answer? What did they do?
>
> S1: Well, they show how the team thought that she was a good freestyler, she didn't want her on the team and when Betsy saw that she was a good swimmer and that's how I got my answer.
>
> S3: The words I circled helped me find the main idea because it sort of, well, it sort of tells you like just with the words I circled I can find that the story, like just seemed like she tripped, pulled off a button, spilled, suddenly stiffened and oh, no she cried out and wrong. They're all the words sort of, put the things together, I guess.

While these subjects all used a summarizing process to find the main idea, what information they selected from the text varied from person to person.

Formulating a picture. Subject 20 primarily related this reason for information being significant. He primarily used this imaging strategy for every kind of work he processed. He explained his use of picturing the event in the expository passage "Chimps and Humans" as a method of establishing the conditions upon which the conclusion was based:

> S20: OK. "Treated" I circled because that just, you had to know that they did the same things. That's a key part I thought in the story that it stuck out in my mind treated because it just, I pictured in my mind that everything exact. The father made them do everything exact.

R: OK. And why was "first" so important?

S20: She was the first to follow. That kind
of pictured in my mind, she started, she
starts faster. But then when you read the
stuff at the end of the story, you kind
of know chimps can't talk but they're
smart.

Likewise, subject 20 used mental pictures to aid in his processing of the narrative, "The Faithful Dog".

S20: First he "loved", that kind of tells you
he really liked his master and his, but
most of all his baby son. I think that
was fairly important because I pictured
a dog just being commanded and he'd do it,
do whatever he was told. And he'd protect
the baby son.

R: OK. Now did that give you any kind of
information that kind of helped you with
the rest of the story?

S20: I kind of saw something might happen like
that into the story. That the dog would
do something to the baby. It'll seem like
he did something but he doesn't. No he
doesn't, he's accused, but he isn't. The
key words helped me find the main idea
because I just find the main idea in the
story and just picture it in my mind.
"Wounded" - you see a wounded wolf laying
in the corner and you can see the baby
son and master loved by a dog and "scratched
and bloody" - you see a dog scratched and
"turned over on the floor" - the crib just
laying, hanging there.

Through his active imaging of the events, he was able to determine the main idea.

Predicting and substantiating. The significance of the active predicting and corroborating of predictions by the readers was noted in strategy use as well as in the selection of significant information. The following explanations revealed its use:

R: Why did you circle "spoonerism"?

S3: Because that's what they're going to talk about.

S29: Well, it says "baby chimps and human babies grow and learn in different ways". That, I think, is the main idea of the story. And it describes what is going to happen and probably what is going to happen in the main idea or passage.

S25: It helped me think that the main idea would have to be something to do with her being responsible for the dog. And it just fits and that tells, like the same thing, that these two match, sort of. Like responsible for the puppy and also how she would try to - like, puppies, like that's the main idea of the story, I think, dogs.

Remembering. A final reason given for key words being important related to a way of remembering all of the information required in order to formulate the main idea. The following responses were given:

S29: OK, made of wood, I really knew the third time, I think. I should have put it in my answer that about the houses they just built the house. And that helped me picture in my mind that they're going to have to save it some way. And that "save" that helped me remember that.

R: And then why did you circle the parts that weren't about tongues? You've got "important" circled. You've got "picks" and "smells", and "to find". What else have you got there? You've got "long" and "tricky". Why were those such key words?

S11: "Important" was because it says tongues are quite important. And "picks", "smells" well it's weird that a tongue would pick smells like the nose, so and "animals" just tells about animals again and "long" I would have circled all about tongues but then I would have taken - well, I don't know why I circled "long".

R: OK. How come you didn't circle those parts, those other parts you said you would have circled?

S11: Well, it would have been quite long and then if you would just look, you know that it's going to be every different part. It's going to be about so many parts of the animal's tongue and how it works, but you'll remember once you go through.

Remembering as a reason for key words being crucial was given only for expository passages, as if the remembering of the crucial information was more complex given an expository passage.

Summary. In summary, when subjects referred to selecting key words as a strategy for finding main idea, they were keying upon information which repeated the subject, helped predict or substantiate predictions, formulated pictures, provided summaries, or helped them as a memory aid. These reasons were also noted in the explanations of why information was important, and provides corroboration of the reasons for selection.

The next section will describe what information readers did not find important and their reasons for this assessment.

Why Information Is Not Important

Why information was not attended to presents a further understanding of what aspects of the text are selected for contextual purposes. Five major reasons for text being insignificant were identified. Again, the ignoring of information was often determined by the reader's use of strategy. Information was considered not important if it:

1. did not relate to the central problem requiring a solution.

2. did not fit into the major topic.

3. did not prove an already established answer.

4. was already known by the reader because it (a) was repeated several times, (b) was obvious, or (c) was a detail exemplifying a main point.

5. was interesting but did not help establish the main idea because it (a) was an introduction tacked on, (b) was a conclusion tacked on, (c) dealt with a minor character, (d) dealt with setting, (e) didn't provide any information, or (f) was a direct comment made by the author and didn't deal with the actual story.

These reasons for unimportance will be dealt with in the following subsections. The first two to be described are closely related, but they are discussed separately because the first reason was given when the readers processed narrative, and the second was given primarily when they processed exposition. This distinction was also apparent in strategy use and in the reasons given for information being significant. They stress the selecting of central conflict for narrative, but the establishing of topic for exposition.

Unrelated to the central problem. Subject 3 acknowledged that while all information in the text must have some importance since the author has included it, some information was not as significant as other information because:

> S3: It doesn't have much to do with the problem because you don't have any idea that there's going to be a problem, but like what the problem is going to be, but it does have information, but, I don't know, I just didn't underline it because I didn't think it was that, that important. But most of the information in the story like practically

> every sentence, is worth something or else the author wouldn't have bothered writing it down.

Because the readers were intent on establishing the central conflict and its resolution, this same reason was given several times for each of the narrative passages.

> S18: Well, it doesn't say anything like... it does say that she wanted a dog, but it doesn't look like, well she's just saying about it. It doesn't help me in finding the answer.
>
> S8: Well, it doesn't really help you come to a conclusion about the story. It just shows that one of the girls didn't want her to race in the relays.
>
> S10: Well, all it does is tell what happened during the race. It doesn't give any main idea about the story.
>
> S25: It just, OK, you knew she wanted a dog, but, OK, by the next couple of things and that was just sort of like telling how much she wanted a dog and stuff like that. But it didn't tell, like it didn't lead up to anything really in the story too much.

Not "leading up to anything" outlined an expectation of a complication which must be contended with.

Doesn't fit under the major topic. Because the narrative, "Lily", lent itself to a categorization strategy due to the heavy organizational structure imposed by the writer, readers found information not fitting the category unimportant. Both of the following explanations were given for not selecting the sentence "Lily sat down on the bus," located at the beginning of the passage:

> S1: Well, it doesn't really, like she sat down on the bus. That doesn't really fit with all the other ones here. Like

she's not in a hurry or anything. She's sitting down so she can't really be clumsy or anything.

S7: Because the main idea was about a little girl making mistakes and when she sat down on the bus that wasn't a mistake.

Her action of sitting in the bus was insignificant compared to her other actions, and furthermore it did not provide a detail that would be construed as an error.

All other passages that evoked this reason for unimportance were expositional. The following explanations of why the information is not important all exemplify this same reason:

S1: It wasn't important cause it didn't, it just said "Open your mouth. Say ah-h. See your tongue". That didn't really help because it didn't say if it uses it to find prey or whatever. So that didn't help.

S25: Well, cause after I read through the story a little bit more it talks about the ice and the water and so it doesn't really fit how they talk about how you need it and stuff. It just says that you've got it and stuff.

R: Let's look at the second sentence. "One scientist raised a baby chimp at home with his own baby son, Donald". Why wasn't that important to you?

S23: Because it's just like well, it's just what the paragraph is going to start out to be.

R: OK. So why isn't that important?

S13: Because it didn't have to do with growing or learning.

If the information did not fit under the major category or topic, it was discarded.

Not proving an answer. Sometimes when the reader had already chosen his answer and the information he read contradicted his answer, he ignored it:

> S18: I don't know. I guess cause I had my answer first and I was just thinking that it would be strong and protective.
>
> R: OK. Let's look at the parts you didn't find important. I noticed that you went through a whole paragraph and you didn't underline anything. Why isn't this information about the day being hot and so on important?
>
> S29: Cause like, when I picked my answer and I looked back it didn't have to do with keeping things cool. It just showed how how it was all the time.

The first example illustrated how this ignoring of information revealed a lack of flexibility or willingness to change. The information on the dog's loyalty in "The Faithful Dog" was ignored because subject 29 had already decided that his answer would be "Dogs are strong and protective". The second example, though, does not reveal inflexibility. Rather, the information would not change the main idea. The detail had been used only to support and emphasize the major point regarding the ice. Details which have the potential for altering the reader's hypothesis of the main idea are essential, and most proficient readers heed them.

Already known. Readers tended to disregard information which was obvious, which had already been repeated several times, or which provided details exemplifying a main point already established. The following examples reveal that the information was disregarded because it was repetitious:

> R: OK. Now, why didn't you find some of this information important? First of all "One scientist raised a baby chimp at home with his own baby son, Donald". Why wasn't that important to you?
>
> S22: Well, actually, like, that had something to do with the next sentence. "The two were treated the same." So I would have underlined either one of them.
>
> R: Why does all the rest of this information not seem important?
>
> S22: It was just, like "treated the same"; it talks about they played with the same toys and tucked in and talked together and they were tucked in. That just helps say what treated the same.

> R: Why was this part here not important? The fact that the crib was turned over on the floor. Why wasn't that important?
>
> S18: Well, it sort of tells you that there's a fight already when the prince saw the huge wolf lying in the corner of the room. So, well it's probably just to describe that the well, the master thought the dog had been fighting with the son but I think it's just a description, sort of.

Another form of "already known" caused the reader to disregard the information as well. Such information was considered "obvious" by the reader:

> S24: Because you saw that the huge wolf was lying there in the corner and you kind of knew that the dog was the one that was responsible for him lying there in the corner. And you know he was hurt cause the dog was hurt, too. But they didn't really have to put in about he was wounded because the dog was like that

too and then the prince's son was playing happily nearby. You would probably know cause the crib being turned over and then all that was in there that was scratched and bloody and stuff was about the dog and the wolf and so you know that the kid was alright because they were the only ones that were fighting.

R: All right. Why wasn't this last line important? "Everything had seemed to go wrong for Lily this Monday morning"?

S10: Because with all the other stuff it's just obvious.

S20: Well, because, obviously, he's not going to cut it when it's a millemeter thin. It's got to have certain thickness before he cuts it and how he cuts it doesn't make no difference.

R: Why doesn't it?

S20: It's how he uses it that makes it important.

R: So you were underlining the uses of it?

S20: Yeah.

Lastly, details which exemplified main points already absorbed were also considered of little value:

R: OK. Why didn't you find any of this information from the "next workers with axes" all the way to the end. Why wasn't any of that information important?

S20: Well, that was just more detail about the houses. I didn't find that important; I didn't put that in my conclusion. I think I should have when I read it the second time. But it just told you, it told you about houses and that just went into detail how they made it safer and...

R: Why didn't you find the detail important?

S20: Well, I like detail in a story, but you just try finding the main idea usually of a story, especially a factual story you like finding the main idea. And it's very interesting knowing about the details but it doesn't, it doesn't stick out in your mind as much as the main idea.

R: OK. What about "They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was first to follow orders" and so on all the way through here? Why didn't you find that important?

S29: Because where it says she could use her hands and fingers better you know she's developing faster and you don't really need where it says, it tells you things that she's developing faster in all those different ways. And you kind of know she's going to because where it says they said it did and where it says she's using her hands and fingers and signals.

R: Now, what about all these parts here you left out? You didn't find anything important in here. Why wasn't all this part important for you?

S30: Well, they're just little details in the story. They're not really too important. Like, just adding on to the main part.

These details were insignificant because the reader's main purpose was finding main idea. What did not aid this process was not attended to.

The final sub-section deals with what the reader considers superfluous material: it's pleasant but it isn't necessary.

Interesting but not helpful in finding main idea. Information considered superfluous in the sense that it provided "the frills" to the passage was information producing interest-provoking introductions, conclusions telling everything was "happy ever after" and details telling about minor characters or setting.

Subject 18 explained why he found neither the introduction nor the conclusion to "Keeping Cool" important:

> S18: Well, usually in the beginning of something there's nothing really important unless there's a character or something.
>
> R: OK. Good. And the very last part here. How about this last part, "Then people would enjoy the relief of a cold drink on a hot day". Why was that not important?
>
> S18: That was something like the front part, like it's just ending up the story.

Subject 1 made the same assessment:

> S1: Well, cause that really didn't have anything to do with different parts, like the main parts of the story.
>
> R: Well, how do you know that it didn't?
>
> S1: Well, it's just sort of an introduction like, it wasn't really all that important to me.

Subject 4 related why the conclusion to "Mary Jo's Responsibility" was not needed:

> S4: Because she's already solved the problem that's kind of a happy ending that they've added here.
>
> R: So, were you looking for a problem or what when you were trying to find the main idea?
>
> S4: Just looking, yeah, for a problem and ways to solve it.

These readers' opinions of opening paragraphs were insightful. Some of the readers stated that the main idea was to be found in the first statement or paragraph. These readers explicitly stated their awareness of some introductions "being attention-getters".

Likewise, information presented about a minor character was considered relatively unimportant. Subject 27 did not find the information about the prince grabbing a stick and running towards Sam important in "The Faithful Dog" because:

> S27: Because well, I was just looking for parts that told about what the dog had done and all that does is tell about what the prince did when he was upset.
>
> R: So why wasn't the prince an important character for you?
>
> S27: Because all he does is like, he doesn't even guard the baby, he just lets the dog do it and he just went hunting and stuff. He didn't do anything.

Subject 17 also did not find information about the prince important, nor did she find the "once upon a time" setting significant:

> R: OK. Now I'm curious just why some of this information wasn't important. Like "Once upon a time a prince had a large", you left that part out. Why wasn't that important?
>
> S17: Well, because the main story is about the dog and the little baby and the owner and the wolf. And so the prince isn't really in it because he's hunting alot. And so and then once upon a time isn't really important. And...
>
> R: Why not?
>
> S17: Well, it could happen, well not really, because it's princes and stuff. Well, it could happen today, I guess.

Another subject explained that the material was superfluous and therefore, not important by saying it did not tell her anything. Subject 3 explains why the swimmers' swimming times were unimportant:

> S3: Cause, OK, so she wasn't swimming in that event, OK. And then... like, it tells you about times. It tells you about Marti. And like, so what about her? So what if she can swim 35 seconds! That's nice, but it doesn't really help me in any way.

She found Lily sitting on the bus unimportant for the same reason:

> R: OK. Tell me why you didn't underline "Lily sat down on the bus"? Why wasn't that information important to you?
>
> S3: Like, it didn't tell me anything. "Lily sat down on the bus." Anyone can sit down on a bus.

The information was not important because it was too general or because it related information about a minor character that the reader did not find important.

A final reason for disregarding material related to the author's direct commentary on events in the story. Subject 16 stated about the last line in "Lily":

> S16: Because that was sort of like an ending sentence. It was more like the author talking, like it wasn't about Lily doing anything.

Although this statement provided the explicitly stated main idea for the narrative, he did not require it.

Summary. A comparison of the reasons for considering information significant and non-significant is given in Table 5.8

Readers did not use information they found unrelated to the central conflict or topic of the passage. If the information was superfluous or already known, it was discarded. Lastly, some of the readers chose to ignore information that did not substantiate their

Table 5.8

A Comparison of the Reasons for Information Being Significant or Non-significant

SIGNIFICANT	NON-SIGNIFICANT
Provides a summary	Does not relate to the central problem
Emphasizes an idea through repetition	Does not fit the major topic
Generates or verifies predictions	Does not prove an already established answer
Forms a base for making inferences about character	Is already known
Relates an experience similar to one recalled by the reader	Is interesting but not helpful in establishing main idea
Establishes central conflict or leads to the solution of the conflict	
Pictures a scene or action	
Necessitates the alteration of a prediction	
Fulfills the requirements of general story schema	
Creates suspense and foreshadowing	
Establishes a major topic or event	
Provides descriptive detail	
Provides linguistic cues signaling organization	
Provides unfamiliar information reader wishes to learn	
Creates cognitive dissonance	
Corroborates a multiple choice answer	
Provides a main action	
Adds interesting descriptive details	

already established answers. If this strategy ignored a detail which might change that answer, the strategy was ineffective. Only one reader ignored vital information that affected her answer.

Chapter Summary

While most of the proficient and very proficient readers gave only vague definitions when asked to define main idea, their operations revealed a sophisticated understanding of the concept. They intuitively attempted to extract a central message in concentrated form. This message was a generalization which had been synthesized by categorizing the relationships among the parts. Lastly, it was a significant idea because it was repeated many times and because the complete passage revolved around it.

A classification of their operations revealed the use of ten major strategies for finding main idea. Of these ten, four were specifically related to the form of the passage. Subjects established the major character within the event and cued on the conflict and resolution of the plot only when processing narrative passages. When finding the main idea for expository passages, the readers established the common topic and added the differences stated about that topic, or cued on the repetition of the topic. The readers, though, used many strategies. Strategies commonly used with both narrative and expository passages were: imaging, recalling selected events, summarizing and categorizing details, using key words or ideas, using question frames and applying comprehension aids. Although the readers intuitively and flexibly used these strategies, their inability to linguistically describe their mental operations hampered their explanation of their actions.

The reader's strategy use and the form of the passage interacted with the reader's notion of what information in the text was important. When processing narrative, the reader chose information related to character and plot. Reasons given for information being important only in narrative passages were: it provides a base for inferring character; it establishes the central conflict or leads to the solution of the conflict; it creates suspense and foreshadowing; and it states a main action. These reasons of importance complemented the strategies used to find the main idea for narrative: establishing the major character and cueing on the conflict and resolution of the plot. Similarly the reasons for selecting information from expository passages complemented the strategies used to find the main idea for exposition. The two major strategies used were establishing the common topic and then adding the differences, and cueing on the repetition of the topic. The main reason for information being important was that it established the major topic or event. In addition to these reasons constrained by the form of the text, several other reasons for information being important were given: it provided a summary, generated or verified predictions, pictured a scene or action, related an unexpected turn of events, provided descriptive detail, related to the personal experience of the reader, signalled a cognitive organization in the passage or provided unfamiliar information. Lastly, if the information corroborated an option in a multiple choice question chosen by the reader, that information was considered significant.

Of no significance was information not related to the central conflict or the topic of the passage. Readers discarded information they already knew or which they believed to be superfluous.

The readers' use of information from the text revealed that context was not contained within the text, nor was it static. Rather, context represented an interaction between the reader and writer (text). Each reader personally combined cues from the passage with his personal experiences to determine the context for the moment. The context changed continually as new information was read and related. Thus, reader flexibility as he interacted with the text was essential in the formation of the main idea. The main idea formulated depended upon this personal interaction between reader and writer (text), but this interaction was also affected by the task and the form of the work presented.

On the basis of these observations, two definitions of main idea were formulated. These definitions will be reported in the next chapter.

CHAPTER 6

THE DEFINITION OF MAIN IDEA

A significant purpose of this study was to clarify what concept the label "main idea" represented. This was deemed necessary because previous definitions were generalizations which seemed to be based on differing sets of specifics and their relations. This study, through the description of grade six readers' mental operations and their main ideas produced, helped to clarify the interaction occurring between reader and writer (text) when main idea was being formulated. A synthesis of this information allowed for the building of a conceptual definition, and a more comprehensive insight into the process termed "finding main idea". It served to provide a base upon which generalized definitions of main idea could be extracted. This same base could be used to judge the quality of existing definitions.

This chapter is divided into five sections. Section one will explain the significance of and need for conceptual definitions from which more general definitions could be validly abstracted. The second section explains the limitations of previous definitions of main idea. The third section provides a conceptual definition of main idea and distinguishes it from comprehension. Next, the contributions of the conceptual definition are outlined. Finally, the limitations of the definition are presented and suggestions for further study which could help extend the present conceptualization are given.

The Significance of Definition

I. A. Richards (1937) stated that:

> We are often deprived of very useful thoughts merely because the words which might express them are being temporarily preempted by other meanings. (p. 384)

Richards urged people to use words in many senses, and in sensing words in different ways, because "when we define, we seem in danger of circumscribing nature within the bounds of our own notions" (Burke, The Sublime and Beautiful, Introduction). While definition can limit the understanding of the actual system of things by presenting a conclusion based on a fallacious base, definition can also serve to clarify the systems of operations and promote a common understanding among people. Such an explanation of how the specifics interrelate within the system allow for the improvement of generalizations which can be extracted from those facts. Definitions which attempt to relate the mental operations of a process need to be based on actual occurrences and there is a great need for such conceptual definitions which have the power to explain the place of an operation within the system of operations.

In the review of literature for this study, no conceptual definition for "main idea" was found. Definitions stipulated by various researchers and teachers seemed to represent generalizations based on different bases, none of which had been explored for validity. It was therefore crucial to describe the operations occurring when readers found main idea in order to extend the understanding of the system of operations which occur when a person reads.

Without such a conceptual definition, what researchers are attempting to study may relate to very different processes and may be based on false assumptions of what main idea is.

The Problem With Present Definitions

There are three primary purposes for defining (Robinson, 1954). One is to explain the meaning or essence of a thing. The second is to explain the meaning of a word which could represent an idea or a thing. The third purpose which essentially relates the first two is to explain a system of operations.

While a conceptual definition of main idea which describes the role of reader and writer (text) as well as the statement produced as the main idea is difficult to create, it is the most useful in understanding what reading involves.

Present definitions used in research relate only to a portion of the concept, and have not been given the validity test. For example, the Dictionary of Reading Terms provides three definitions of main idea:

1. the central thought, meaning or gist of the passage.
2. the chief topic of the passage expressed or implied in a word or phrase.
3. a statement in sentence form which gives the implied major topic of a passage and the specific way in which the passage is limited in context or reference.

Definition one focuses on the text and implies that the main idea is a characteristic of the text. Definition two is also passage related but it narrows the aspect of text to a word or phrase which explicitly states or implies the topic. Statement three, on the other hand, is a description of an operation expected by a reader in that he must produce a single statement which describes what is contained in the text. All three definitions underplay the significance of the interaction between reader and writer (text) in the formation of the answer which is labelled main idea as well. The definition presented in the next section is an attempt to integrate the process of finding main idea to the product, main idea, so that a global understanding of the term may be acquired. It should be noted, though, that in searching to establish the concept underlying the term main idea, new notions of main idea emerged. As Robinson (1954) stated:

> Often when we try to analyze a thing we come out with an analytical concept of a new thing rather than the thing we started with because the attempt to analyze leads us to see a defect in our old concept (p. 186).

These new notions inherent in the conceptual definition will be reported in the next section.

A Conceptual Definition

To define the system of relations represented by the words "main idea" necessitates the study of many individual readers as they interact with the writer through text. The conceptual definition formulated in this section was that formulated only by grade six proficient and very proficient readers and is therefore limited. A greater number of individuals from a variety of age groups need to be observed, for the meaning of the term lies in the individual minds of the readers. As

Virginia Woolf (Death of the Moth) noted:

> Words...are the wildest, freest, most irresponsible, most unteachable of all things. Of course you can catch them and sort them and place them in alphabetical order in dictionaries. But words do not live in dictionaries; they live in the mind (p. 131).

So do concepts live in the mind, and a general conceptual definition can only arise from the specific study of the individual concepts held by a population of readers. The definition emerging from the descriptions given by grade six readers emphasizes the significance of relating the main idea (as answer) to the finding of main idea (mental operations or process), for the answer is a by-product of the interaction between the reader and writer (text). As such, the process of that interaction is crucial in determining the answer.

Each of the major aspects, the product or answer produced, and the process, or the interaction between reader and writer (text) will now be discussed in detail.

The Product

When the subjects were asked to produce main idea, their processing of information revealed that they were looking for or creating a single statement which represented _the_ essence of the passage in concentrated form. The essence or significance was determined by its representation throughout the text and its repetition. The single statement was a generalization which was central to the passage; that is, the passage revolved around this idea.

This passage specific idea which was abstracted differed for exposition and narrative. Given the expository passages, the readers abstracted one statement which explicitly stated the generalization of the passage. For narrative, however, the abstracted idea symbolized other ideas as well as explicitly stating the generalization. In this way, it gave the reader the power of abstracting insights (or themes) from the work, allowing a multiplicity of interpretations to which the reader could respond. These two forms of prose represent the range in form the main idea as an answer can take. (Thus agreeing on the themes emanating from the symbolic meanings of the main idea could prove to be a difficult task even though the main idea itself might be identified.)

The Interaction Between Reader and Writer (Text)

While the definition of main idea remained the same for both narrative and expository passages, what did differ were the strategies instituted to find the main idea, and the contextual frame on which the interpretation was based. The most popular strategy for finding the main idea of narrative was to establish the main character, the conflict, and the resolution of the conflict; however, recreating the experience through imagining, following the main actions, and predicting what would happen next were also popular strategies. With exposition the majority of the subjects established the topics and collected the different points made about that topic by examining each paragraph for its main point.

In both cases, task affected the process. Readers used multiple choice questions as a frame from which to consider the information in the text. They primarily predicted what answer was probably correct, and then sampled information from the text to corroborate the prediction. The use of this strategy revealed the need to re-read with an adjusted purpose. When the subjects had to produce the answers, they had to structure their own contextual frames. Regardless of which task was required, subjects selected what they considered to be key information from the passage.

An explicitly stated main idea was considered key information because it provided the generalized statement they were looking for. Aspects of plot in narrative and topic statements in exposition were regarded as crucial information but no two readers cued on exactly the same combination of textual information, reflecting the personal nature of cue selection. Thus context was not located in the text; rather it was created by the interaction between the reader and the writer (text). Neither, then, is main idea an idea found exclusively in the text.

A summary of the explanations revealed only one crucial guideline: flexibility. As the reader's perspective changed, so did his strategies and his conceptions about important information. If the information in the passage was new to the learner, more textual information was required to create the contextual frames. If the reader understood the information he was reading, he relied very little on the text and merely sampled it to corroborate his predictions.

Because the reader's operations were so flexible, only a broad general operational outline could be provided. The broad outline, nevertheless, serves to emphasize a significantly different strategy use for expository and narrative passages. In order to find the main idea of a narrative passage, a reader establishes the character who is most stressed in the story, and examines what conflict the character is undergoing. In order to determine how the conflict is resolved, the reader follows the main actions which occur from the incident that starts the conflict to the final incident that resolves the conflict. A summary of this information is used to infer what change occurred in the character because of the experience or to determine if the character did not change why his not changing was important. An alternative operation involves identifying with the main character and his problems and how he deals with them, or picturing him as he deals with them. This operation is possible because authors create experiences for readers to live vicariously. In this way the reader through his own experience can identify the key issue around which the story revolves. Either process, or the use of both, will relate the insight of the experience generated by the author. The insight will be a general idea about life and it will be the key idea upon which the whole passage revolves. Given the task of writing the main idea, the reader must state the issue or problem as the topic or subject of a sentence, and complete the sentence by explaining what about the topic has been implied by the experience presented in the story. Sometimes, writers tell what the experience is supposed to communicate. Such a statement, if given, need only be verified through the sampling of the story.

In order to find the main idea of an expository passage, the reader identifies the word that is repeated most throughout the passage to ascertain the topic. Then each different point made about the topic is determined by examining each paragraph to determine if something new is being said. All of the different points may be summarized into one general statement or the ideas may be summarized into one categorical idea representing all of the others. If a sentence already summarizes the information, the reader need only verify its centrality by sampling the text.

These descriptions of mental operations reveal the significance of the interaction of reader and writer (text) in the formulation of the answer (also referred to as main idea). The reader selects and interrelates specific details from his mind and the text to create a contextual framework for the selective attending to details and the formulation of the main idea.

Main Idea, Theme, and Comprehension

Figure 6.1 outlines the relationships between main idea, theme and comprehension. Through an active process of contextualizing, the reader provides a framework from which he abstracts a main idea. If the main idea is symbolic in that the text gives it the power to represent other ideas on differing levels of generalization, then the reader cues on producing a theme or themes which are abstracted insights into life based on the symbolic representations of the main idea. Whether the reader abstracts one explicit idea or a symbolic idea, he responds to it intellectually, sensually, imaginatively and emotionally.

Thus, while the main idea is central to the discourse, it does not represent the total meaning of the passage. As Perrine noted:

> The function of the writer is not to state a theme but to vivify it. He wishes to deliver it not simply to our intellects, but to our emotions, our senses and our

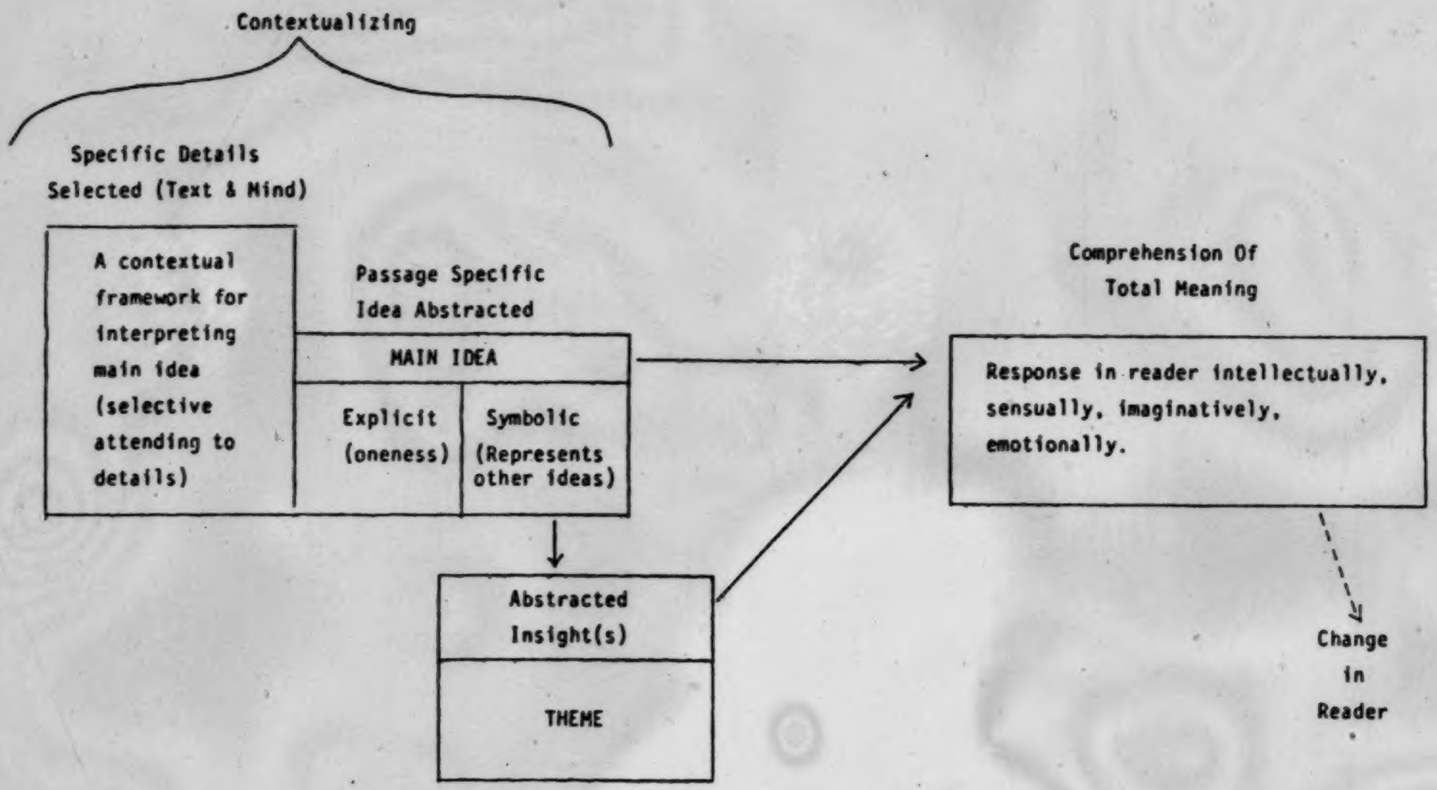

Contextualizing
Specific Details
Selected (Text & Mind)
A contextual framework for interpreting main idea (selective attending to details)
Passage Specific
Idea Abstracted
MAIN IDEA
Explicit (oneness)
Symbolic (Represents other ideas)
Abstracted Insight(s)
THEME
Comprehension Of
Total Meaning
Response in reader intellectually, sensually, imaginatively, emotionally.
Change
in
Reader

Figure 6.1

Main Idea and Theme as They Relate to Comprehension

> imaginations. The theme of a story may be little or nothing except as it is embodied and vitalized by the story. Unembodied, it is a dry backbone without flesh or life. (Perrine, 1959, p. 118)

The skeleton metaphor holds true especially for narrative. If comprehension involves the construction of meaning, then the formulation of main idea is a strategy for synthesizing ideas. The ideas can be synthesized in a variety of ways allowing the reader to go beyond the information given to construct a multiplicity of messages.

To conclude, finding main idea represents a chunking process undertaken by the reader. Through generalization, the reader organizes the information according to an understood structure of the text. The generalizing enables the reader to hold ideas in memory while he organizes them and reorganizes them to provide insights and reactions at a multiplicity of levels. While readers often use this process intuitively, they sometimes use it as a deliberate strategy for finding the meaning of text which is difficult to understand.

Even though the grade six students did not provide differing general definitions for the main idea of narrative or exposition, their mental operations revealed a significantly different conceptualization, as did their answers. Their operational definition of main idea for narrative substantiated Perrine's (1959) differentiation between theme and main idea. Perrine defines theme:

> The theme of a piece of fiction is its controlling idea, or its central insight. It is the unifying generalization about life stated or implied by the story. To derive the theme of a story, we must ask what its central purpose is: what view of life it supports or what insight into life it reveals (p. 117).

The point upon which Perrine differs, however, is the producing of theme in one brief statement:

> The theme of a story may be stated very briefly or at greater length. With a simple or very brief story, we may be satisfied to sum up the theme in a single sentence. With a more complex story, if successfully unified, we can still state the theme in a single sentence, but we may feel that a paragraph - or occasionally even an essay - is needed to state it adequately. A rich story will give us many and complex insights into life. In stating the theme in a sentence we must pick the central insight, the one which explains the greater number of elements in the story and relates them to each other. For theme is what gives a good story its unity. In any story at all complex, however, we are likely to feel that a one-sentence statement of theme leaves out a great part of the story's meaning. Though the theme of Othello may be expressed as "jealousy exacts a terrible cost", such a statement does not begin to suggest the range and depth of Shakespeare's play. Any successful story is a good deal more and means a good deal more than any one-sentence statement of theme that we may extract from it, for the story will modify and expand this statement in various and subtle ways (p. 118).

Why grade six readers believed that the answer had to consist of one statement was not ascertained. Perhaps age introduces a complexity of thought or perhaps teachers have taught students that main idea should consist of one statement.

Nevertheless, the interactions of the reader with the writer (text) suggested that the form of the discourse communicates to the reader a different purpose for reading. A story is different because the purpose of the story is to involve the reader through his emotions, senses and imaginations as well as through his intellect. Through vicariously experiencing a situation, the reader extends his understanding of people and life.

Exposition does not recreate an experience. It reports information, and the reader is more distant, less involved with the work. In either case, main idea only unifies the work and if the only purpose of the writer was to make the point, he would just do so. The details are significant but the main idea is the peg upon which the details are hung, and this peg helps the reader organize, understand, and remember either the experience or the information being presented.

Contribution of the Conceptual Definition

By relating the process of finding main idea to the product, or the main idea produced, this definition revealed the inadequacy of one general definition of main idea for narrative and expository passages. The general definition, "a single statement which represents the essence of the passage in concentrated form", glosses over the underlying differences in purpose and task placed upon the reader as he interacts with the writer through each of these forms. With narrative, the reader's purpose was to vicariously experience the situation. He searched for a theme or an insight into life by becoming personally involved through his emotions, senses, and imagination. With exposition, the reader did not try to recreate the experience but to glean information. He was therefore more distant. Main idea, in this case, was not an insight into life but a statement which gave the topic and the different points made about the topic.

This conceptual definition also clarified the nature of main idea. Regardless of the form of the work, the main idea remained a personalized statement which was based upon a personal selection of information from the text, gleaned through the use of a variety of mental operations. Commonality in response occurred because of a heavily imposed structure either located in the text or in a question related to the text which served to reduce the possible number of plausible answers. The imposed structure by writer or by an "interloper" tended to reduce the amount of interaction between reader and writer which would otherwise occur. Main idea was shown to be a by-product of the interaction between reader and writer (text), not an element of text. Lastly, the definition clarified the relationship between main idea and comprehension.

Limitations of the Definition

The conceptual definition provided was that reflected by proficient grade six readers. What effect age has upon this definition and whether the definition should account for elements of change could not be ascertained by this study. Also further information regarding the effects of textual organization upon the reader/writer (text) interaction and regarding the task imposed upon the reader is needed. Further studies examining the effects of variables upon the whole process would help to develop a more precise understanding of the organizing procedure called "finding main idea".

The term "main idea" represents a process as well as a product. Further research must consider the significance of each individual's conceptualization of what main idea is and what is important to remember if the results of that research are to have validity. This study created a conceptual framework. More studies are required to ascertain how the parts fit within the whole.

Summary

Defining a word without defining the intellectual activity it represents for a given group of people may not reflect the commonly shared meaning for the term. The larger the population upon which generalizations are based, the more clearly the essence of the concept is defined. Differences in age, or other population characteristics, can alter the concept underlying the label. For example, the term "main idea" may reflect a gradual change in operations. Conceptual definitions are valuable in that they provide a base for the extraction of valid general definitions. Conceptual definitions are limited in that they may oversimplify the actual operation they represent.

This study revealed that "main idea" represents a way of organizing information as well as a generalized statement of the essence of the passage. To produce the statement, the readers use a variety of mental operations to create a context based upon the selected use of background knowledge and textual cues. While in many respects their mental operations differ according to their individual needs, they collectively use one kind of operation for creating the main idea of narrative and another kind for formulating the main idea of exposition. These major differences in operation reflect the differing essence of main idea for narrative and expository passages.

Further research needs to study either the process or product of finding main idea in relation to the whole system of interaction between reader and writer (text). It must also be related to the specific reader's conceptualization or understanding of the term.

CHAPTER 7

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The major purpose of this study was to investigate how finding main idea related to the process of comprehending, and to determine how specific text and reader variables affected not only the process of finding main idea, but also the quality of the main idea produced. Furthermore, it was the purpose of the study to investigate and describe children's definitions of main idea, and to report what aspects of textual context children used to find main idea and why. Their conceptions of what information was important or was not important was investigated to observe how the reader affected the contextual framework used to interpret the main idea of the work.

Since the research to date had not ascertained how form and structure of the passage, the length of the passage, and the task demanded of the reader affected his ability to formulate a main idea, it was the purpose of this study to investigate the effects of these variables upon the reader's processing for, and production of, main idea. Specifically, the effects of narrative and expository forms, of explicitly stated and implied main idea structures, of short and long passages, and of providing or recognizing the main idea were investigated.

This chapter will present a brief summary of the study and outline the main findings. Based upon these results, conclusions will be drawn and reported. The limitations of the study will then be stated. Finally, implications of the research will be examined and recommendations for further research will be made.

Summary of the Study

The study was conducted in three stages. During stage one, passages and questions were selected for the study. Two pilot studies were conducted to investigate the suitability of the passages and the questions, and to predetermine the possible effects created by the form, idea, length and task variables. On the basis of the insight provided, the major tests used in the study were generated and the questions for the in-depth interviews were formulated.

Stage two involved the administration of the tests to 240 grade six students. Each subject was required to silently read four passages. He was asked to recognize the main idea for two passages and to produce the main idea for the remaining two passages. Thirty-two different subjects were interviewed in depth in order for the researcher to ascertain how they processed the information provided in the same passages as those in the tests, and to determine what definition of main idea they were using to determine their answers. The in-depth interviews were also undertaken to determine what information from the text was considered important or non-important by the reader, and to determine what comprised the contextual frame the reader used to formulate main idea.

The last stage involved an analysis of the data. A four-way analysis of variance was used to answer research questions one through five. Research questions six and seven were answered through the categorization of interview responses. Relationships between the interview response information and the significant statistical information arising from the data analysis were then inferred and reported.

Main Findings

Eight research questions and fifteen null hypotheses were formulated. The following section provides a summary of the discussion related to each question.

Research Question 1

The first major question this research was designed to answer was: Is there a difference in performance when the student finds the main idea for a short passage compared to when he finds the main idea for a long passage? The hypothesis generated to answer this question will now be stated and discussed.

Hypothesis 1.1: There is no significant difference between the total scores achieved by students for short passages compared to long passages.

The four-way analysis of variance revealed that length was not a significant factor affecting scores at the .05 level of significance. On the basis of these results, the hypothesis was accepted. Yet, the interaction between length and task was a significant factor in affecting students' scores. The significance of this interaction will be discussed in response to research question 6.

Research Question 2

The second major question the research was designed to answer was: Is there a difference in performance when the student finds the main idea of passages which have the main idea explicitly stated compared to implied? The hypothesis generated to answer this question was:

Hypothesis 2.1. There is no significant difference between the total scores achieved by students for passages explicitly stating the main idea compared to those implying the main idea.

The analysis revealed that the idea structure was a significant factor at the .05 level of significance. On the basis of these results, hypothesis 2.1 was rejected. A comparison of the means revealed that passages containing explicitly stated main ideas were more ably processed than were passages which had the main idea implied. While overall, the explicitly stated passages yielded higher scores, the interactions between the variables revealed variations in results. Subjects were more able to process implicit short expository passages than they were able to process explicit short expository passages. This relationship will be explained in more detail in the discussion of research question 6.

Research Question 3

The third question answered by this research was: Is there a difference in performance when the student finds the main idea of passages when the task he is given is to recognize the main idea compared to produce the main idea?

Hypothesis 3.1. There is no significant difference between the total scores achieved by students when they recognize main idea compared to when they produce main idea.

Task was reported as a significant factor at the .05 level. The hypothesis was therefore rejected. An analysis of the differences in scores revealed that subjects were more able to recognize answers then they were able to produce them. Task was the most significant of the four variables. It accounted for 73% of the explained variance.

Research Question 4

Question 4 was: Is there a difference in the performance of students when they choose main idea for narrative compared to exposition? The following hypothesis was designed to answer this question:

Hypothesis 4.1. There is no significant difference between the total scores achieved by students for narrative passages compared to expository passages.

The four-way analysis of variance reported that form was a significant factor (.05) in the determination of student scores. Hypothesis 4.1 was therefore rejected. An examination of the means revealed that subjects were more able to find main idea for expository passages. Yet, inspection of the two-way and three-way interactions qualify this statement. The subjects were able to process the short implicit exposition better than any of the remaining combinations with form. The simplicity of this passage may have affected the mean for the expository passages and made the significance more dramatic than it should be. It may be possible that given further research this difference between forms may not be significant.

Why the short implicit expository passage was easier for subjects is uncertain. Insight provided through the in-depth interviews revealed that the subjects primarily used a simple categorization strategy to arrive at the main idea. The categorization involved only generalizing that "breakfast" and "spoonerism" fit under the category of "word". The influence of such internal structures should be researched in detail. Lastly, the generalization that subjects found short implicitly stated expository passages easier was based on only one passage, due to the restraints of the study. Therefore, while the conclusion that expository passages are processed more easily may be supported by the results of this research, it is at best tenuous and requires further study.

Research Question 5

The fifth research question was designed to answer: Does an interaction between two, three, or four of the form, idea structure, task or length variables affect a student's performance when he finds the main idea of a passage? Eleven hypotheses were designed to answer this question. Each hypothesis will be stated and discussed.

Hypothesis 5.1. There is no significant difference in the total scores achieved by students due to the interaction between the length and the idea structure of the passage.

The scores attained by the subjects were not significantly influenced by the interaction between the idea structure and passage length. The hypothesis was therefore accepted. Length and idea did, though, interact significantly with form as previously discussed.

Hypothesis 5.2. There is no significant difference in the total scores achieved by students due to the interaction between the length and the form of the passage.

The interaction between length and form did not significantly affect the scores attained by the subjects. The hypothesis was accepted.

Hypothesis 5.3. There is no significant difference in the total scores achieved by students due to the interaction between the length of the passage and the task given.

The analysis revealed that the length, task interaction significantly affected the scores achieved by the subjects. Hypothesis 5.3 was rejected. A comparison of the means revealed that while subjects were more able to recognize main idea, they were able to recognize the long passages better than the short passages. When subjects produced answers, however, they were more able to produce answers for the short passages.

Hypothesis 5.4. There is no significant difference in the total scores achieved by students due to the interaction between the idea structure and the form of the passage.

The interaction between the idea structure and the form significantly affected the scores achieved. Hypothesis 5.4 was rejected. An analysis of the means reflected a significant interaction that was explained by an inspection of the significant three-way interaction between length, idea, and form. Whereas the two-way interaction between idea and form suggested that subjects found implicit expository passages easier than implicit narrative passages, and that they found implicit expository passages easier to process than explicit narrative passages, this was not so. As previously stated, subjects found the short implicit expository passages easier than the long implicit expository passages, but did not find the long implicit passages easier than the long explicit passages.

Hypothesis 5.5. There is no significant difference in the total scores achieved by students due to the interaction between the idea structure and the given task.

The analysis revealed that the interaction between idea and form significantly affected the scores. Hypothesis 5.5 was rejected on the basis of this information. An examination of the means revealed that while subjects were more able to recognize answers, as previously reported, they were better able to recognize the implicitly stated passages.

Hypothesis 5.6. There is no significant difference in the total scores achieved by students due to the interaction between form and task.

No significant effect upon the scores was reported. The hypothesis was accepted.

Hypothesis 5.7. There is no significant difference in the total scores achieved by students due to the interactions among length, idea, and form.

A significant effect upon the scores was reported. Hypothesis 5.7 was rejected. An examination of the interaction provides an explanation for hypothesis 5.4. When idea and form are separated on the basis of length, the effect on the scores was caused by the short passages. The short implicit exposition accounted for the variation. Subjects found this passage easier than any of the other passages. Since this finding has already been discussed under earlier hypotheses, it will not be discussed further here.

Hypothesis 5.8. There is no significant difference in the total scores achieved by students due to the interactions among length, idea and task.

No significance was reported. The hypothesis was accepted.

Hypothesis 5.9. There is no significant difference in the total scores achieved by students due to the interactions among length, form, and task.

No significance was reported. The hypothesis was accepted.

Hypothesis 5.10. There is no significant difference in the total scores achieved by students due to the interactions among idea, form and task.

The analysis did not reveal a significant effect upon scores. The hypothesis was therefore accepted.

Hypothesis 5.11. There is no significant difference in the total scores achieved by students due to the interactions among idea, form, length and task.

The analysis revealed that the four-way interaction of the variables did not significantly affect student scores. The hypothesis was accepted.

The answers to the hypotheses related to research question 5 when summarized indicated that text structure affects the quality of main ideas formulated by grade six readers. Explicit narrative was easier to process than was implicit narrative. Long implicit narrative was easier to process than was short implicit narrative. The reader was also better able to process explicit long passages than implicit long passages when reading expository articles. While this study suggested that the reader was more able to process implicit short expository passages than explicit short expository passages, this conclusion requires further study.

Research Question 6

Research Question 6 asked: "Is there a difference in the concept of main idea held by students as evidenced by their definitions and their performance?"

The in-depth interviews disclosed that grade six proficient readers did not verbalize what their operations revealed they knew. Subjects attempted to define main idea as a product even when the researcher asked them for an operational definition: "If your teacher asks you to find main idea, what is she asking you to do?" While most subjects merely replied "to find what the passage is mainly about", operationally they processed the information to derive a single statement which provided the essence or message of the work as a generalization which was central to the work and significant in that it was repeated throughout the context. These results suggest that verbalization of the operations depend upon a reader's metacognitive awareness of his operations which may be related to maturational factors. Brown (1975) noted that grade seven subjects were metacognitively aware of their operations. When finding main idea, grade six proficient readers demonstrated varying levels of awareness of their operations.

Research Question 7

The seventh research question asked "How does a student process the information in the passage in order to determine the main idea?" It also posed a question regarding context: "What information does the reader find important or not important and why?"

The categorization of student responses given during the in-depth interviews identified the use of several major strategies, even though the subjects usually only explained one strategy when they were asked generally what strategies they used to find main idea. While all subjects were not able to identify the strategies they were using, their responses to the tasks indicated an intuitive use of strategies corresponding to the form of the passage. With narrative the reader cued on the plot: the major conflict and its resolution, or at least the major actions comprising the initial incident, rising action and climax. With exposition the reader cued on the topic and then established the different points made about the topic by examining the passage paragraph by paragraph. A variety of other strategies were used with both forms: recalling selected events, using key words or ideas, using a question to frame a selective choosing of detail, using a frequent repetition of topic, and using a provided comprehension aid. The most basic of these strategies was identifying key words and ideas.

None of the strategies were length specific, or structure specific, but task affected the quality of main ideas formulated by the reader and affected the strategies used by the reader to find the main idea. Subjects were more able to recognize the main idea when a multiple choice question built a contextual frame for them. When the reader had to produce his own answer, he needed to structure his own frame and more operations were required on his part to complete the task.

In conclusion, strategy use was flexible, and readers used a complex set of operations to select information from the text and to relate it to their knowledge stores for the purpose of finding main idea. These operations reflected that finding the main idea for narrative was a different process from finding the main idea for exposition.

The "how" of the processing of information was related to the "what" of the processing. The contextual frame used to create the main idea was highly flexible, changing in accordance with changes in strategy use and task expectations. Context was not located in the text but was a psychological frame created by the reader as he interacted with the text. The context constantly changed, and was affected by the task, the form of the text, the purpose of the reader, and the strategies used by the reader. What information was important in the text was determined by the individual's needs. When the subject encountered new information in the text, he relied more heavily on the text to provide a contextual framework. When he encountered familiar information he merely sampled the text to corroborate the predictions he made on the basis of his background information. While a summary of the cues subjects found important in the text revealed a pattern of important information in the text, no reader used all of the information found in the general structure. Furthermore, the readers' operations reflected that learning from text was a different process from reading information already known.

What information in the text was important was dependent upon the reader, and cue selection was a personal process especially with the longer passages. While a summary of the cue selections revealed a greater reliance upon certain parts of the text, this process of discerning the important information in the text ignored the negotiating the reader undertook with the text. In actual fact, context was not contained in the text, but was a product of the interaction between the reader and the writer (text). Readers selected this information because it provided a summary, generated or verified a prediction, provided potential for inferring the qualities and actions of major characters, provided the central conflict or solution, pictured a scene or action, related an unexpected turn of events, created suspense and foreshadowing, provided descriptive detail or gave the main actions. Readers also selected information if it was repeated many times, or if it related to a personal experience or established a major topic. Linguistic cues acting as signal words for cognitive organization were noted as was unfamiliar material. Finally, the reader attended to any information which corroborated an option he chose in a multiple choice question.

Generally, his selection of information related to his strategy use, and both the attending to information and the using of strategies reflected a very flexible way of processing. In this way, the context used as a base for interpreting constantly changed. Information not related to the conflict or topic of the passage was discarded, and information which was superfluous or already known was ignored. Lastly, information which did not help to corroborate or change the readers' already formulated answers was not attended to.

What information was selected was organized according to the combination of strategies used by the reader. Those strategies most effective with narrative were imaging, establishing the major character and event, and cueing on plot - the conflict and its resolution. The strategy most effective with exposition was establishing the topic and summarizing the different points made about the topic. The remaining strategies were used for both forms: recalling selected events, using key ideas or words, using a question to frame a selective choosing of detail, using a frequent repetition of a topic, and using a provided comprehension aid. None of the strategies were length specific, or structure specific, but two passages which contained a heavy internal organizational structure did encourage the use of a strategy in harmony with the structure.

In conclusion, the combination of strategies used to process the information was personally based; also, the information selected by each reader produced a personal changing contextual framework from out of which the interpretation emerged. While the subjects intuitively used a complex operation to find the main idea, their knowledge of terms labelling the strategies was limited, and their inability to linguistically describe their mental operations hampered their explanations of their actions.

Research Question 8

The eighth research question asked "What is main idea?" The subjects' definitions were compared to their operationalized definitions which emerged through their answers and their operations used to find the answers.

Most subjects defined main idea generally as "what the story or passage is mainly about". An analysis of their responses revealed that they were searching for or creating a single complete statement which provided the essence or message around which the passage revolved. This answer was a generalization that had gained significance by being repeated throughout the context. An analysis of their strategies and information selection reflected two general operations, one for narrative and one for exposition. When finding the main idea of narrative, the subject established the character who was most stressed in the story, and examined the conflict the reader was undergoing. In order to determine how the conflict was resolved, the reader attended to the main actions which occurred from the incident that started the conflict to the final incident resolving the conflict. A summary of this information was used to infer what change occurred in the character because of the experience, or to determine if the character did not change, why his not changing was important. An operation used simultaneously, or alternatively, involved identifying with the main character and his problems and how he dealt with them, or by picturing the main characters as he related to his problems. This operation was possible because the writer created experiences for the reader to live vicariously. In this way, the reader through his own experience identified the key issue around which the story revolved.

When finding the main idea of exposition, the subject identified the word most repeated in the passage as the topic and then examined every paragraph to determine the different points made about the topic. All of these points were then summarized or categorized into a general comment which was related to the topic in a complete statement. The processing for narrative revealed a more complicated set of operations, and a need for background experiences to help infer what the experience being vivified represented about life.

These conceptions of main idea revealed that two definitions for main idea were necessary. The main idea of a narrative provides a generalized insight into life or theme which provides the story its unity, and is modified and expanded in a variety of ways by the writer in his attempt to vivify it. The reader in his negotiation with the text cues on the main character, conflict and resolution to experience and understand the insight.

The main idea of an exposition reflects the topic of the passage and the major points made about the topic. The reader attends to the paragraph structure to determine the major different points. The definitions are common in that the reader searches for, or creates, a single statement which gives the essence or message of the work in the form of a generalization. This generalization is central to the work and gains significance through its repetition throughout the text.

On the basis of student response, a conceptual definition of main idea was formulated. The definition clarified the relationships between main idea, theme, and total comprehension (see figure 6.1, p. 231). The reader interrelates ideas from his mind and from the text to create a contextual framework through which he selectively attends to details to abstract a passage specific main idea. If the main idea is symbolic, the reader produces insights on several levels of abstraction. To comprehend the total meaning, he responds intellectually, sensually, imaginatively and emotionally to the ideas organized around the main idea. Thus main idea is not synonymous with comprehension. Finding main idea is in itself a strategy which a reader can use to organize the information in the text to promote the understanding and remembering of the total message.

This conceptual definition which related the process of finding main idea to the answer produced by the reader was based only on grade six proficient readers' conceptions. Further research is necessary to determine whether this conception of main idea changes as the subjects mature.

Limitations

The following limitations of the study affected the interpretations of the findings:

1. The study was exploratory in nature. While the researcher was aware that many variables affected the formulation of main idea, only four major variables were controlled and manipulated. The effects produced by the narrative or expository form, the implied or stated main idea, the short or long length, and the recognize or produce task were observed. The results found to be significant need to be substantiated through further research.

2. The study was limited to two types of prose: the story narrative and the expository prose. The conclusions of the study thus relate only to these two forms.

3. Only one aspect of the internal structure of the passages was taken into consideration. That aspect was whether the main idea was stated or implied. How other aspects of the structure affected the results and reasoning of the subjects was observed through the in-depth interviews. In that certain strategies, for example, categorizing, occurred more for certain passages than for others, the conclusions which were based on the comparisons between two single passages need to be substantiated through research with several passages. For example, the conclusions of the three-way analysis of variance were based on the results of only one passage. Therefore, these results could have been produced by other factors than those observed because the other factors could not be randomized.

4. Due to the complexity of the study, and the manipulation of the various combinations of the variables, both of the narrative passages were presented prior to the expository passages in the tests. While the order of presentation was altered in the in-depth interviews and did not seem to produce any effect, the order of presentation of the passages in the text may have affected the results. This order may have affected the comparison between the scores produced for the narrative and expository passages.

5. The research techniques used to probe the subjects' strategies and use of context did not necessarily provide direct access to the actual processing undertaken by the proficient and very proficient readers. Rather, subjects related in retrospection, what they considered important and why. However, it is hoped that such retrospection provided insight into the activities undertaken by the subjects, and into their definition of main idea.

6. Only proficient and very proficient readers were interviewed. The conclusions based on their responses cannot be applied to non-proficient readers. Further research would have to be undertaken to observe how non-proficient readers process information when finding main idea, and to determine what definitions non-proficient readers have for main idea.

7. The population of the study was limited to grade six students. The conclusions based on the analysis of the results are restricted to sixth grade students only.

Implications of This Study

This study emphasizes the significance of the reader - writer (text) interaction, and substantiates the notion that text structure as well as reader task affects the interaction which occurs when the reader reads for the purpose of finding main idea. Furthermore, it reveals that context is not located in the text, but is an ever-changing psychological framework resulting from the reader's selection of important information and his use of background knowledge. What information in the text is important, however, is dependent upon the reader's needs, and textual information is selected on a very personal basis. Yet, the form of a work implies a basic structure to which the reader reacts. The reader uses different strategies and selects different information when he is processing narrative compared to expository passages. Implications for reading theory and the teaching of reading can be drawn from these findings.

Reading Theory

While past studies have alluded to the effect of text structure on the recall of text (Harris and Smith, 1972; Karlin, 1975) this study elaborates how the text structure implicit in narrative and expository passages affects the operationalization of strategies and the selection of significant textual information. Finding main idea for narrative was a complex process but the reader attended to the information providing the central conflict and its resolution, or to the actions which provided this knowledge. This finding corroborates the observation by Brown and Smiley (1977) that grade five readers attend to actions. While this form of attending was noticed for narrative, the subjects did not attend to actions when processing exposition. Rather they focused on the topic and then looked for differences - the different points being made about the topic.

This study emphasizes the significance of task in altering the strategies used by the subject, in altering his selection of important information, and in altering his answers produced. Subjects found answering a multiple choice question easier than producing their own answer. They used the contextual framework provided by the question to help them determine what information in the text was important. The purpose for selection in this case was corroboration. The ten strategies used identified ten different purposes for finding information important, and the purpose of the reader affected his selection of information. The results lend support to the concept of reading comprehension as a complex of interrelated processes, some of which are text structure utilization and background knowledge utilization in relation to reader purpose and task. The degree of text utilization is shown to be a complex process, everchanging and dependent upon the reader's needs. New information causes the reader to attend to the text more closely. Familiarity with information causes the reader to merely sample the text to corroborate his predictions.

The change in the reader created by the form of the work emphasizes the need for reading theory to account for reader flexibility, as the reader interacts with the organization of the ideas presented by the writer. The form affects what strategies he uses, and what information he finds significant. These changes are caused by the underlying purpose and implied task given by the author.

This study explained the effect of task alteration on strategy and contextual use. In that the task given to the reader by the writer and by any other interloper changes the reader's operations, studies which ask readers to classify sentences in a text (Brown and Smiley, 1977) should not be considered synonymous with classifying information to find the main idea. Further research on how task affect the reader's operations needs to be undertaken to describe students' comprehending of passages.

Use of Prior Knowledge

The findings of this study also re-affirm the significance of background knowledge in the abstracting of information. While Zangwill (1972) observed that readers ignored non-essential information, this study recorded why information was considered to be non-essential. It was noted that non-essential is a judgement of the reader as he personally interacts with the text. This study also corroborates Giboney's (1979) concept of the relationship between the knowledge of the reader and his interaction with the knowledge in the text to create an emerging everchanging contextual framework for interpretation. What the reader will attend to will depend on his needs. He may need information to verify a prediction, to infer actions, to find the central conflict, to picture a scene or action, to provide an organizational clue or to establish a topic. How he selects the information influences his interpretation of the work.

Metamemorial Strategies

This study reveals that some students in grade six can express why they find information important and how they use strategies to find the main idea of a passage. Their operations, however, reveal a greater use of strategies than they are linguistically able to describe. The point made by Craik and Lockhart (1972) and Brown (1974) that differing qualities of processing are required with differing amounts of background knowledge was corroborated by this study. The more knowledge the subject had, the less he processed the text.

Lastly, the point made by Vinacke (1974) that narration required more imaginative thinking was born out by this study. With narrative, the readers related to the experience being told by imaging and imagining they were in the character's place. They were more emotionally involved and referred to the importance of foreshadowing and suspense in narrative. They reacted to the purpose of story being to vivify an experience.

The Teaching and Testing of Reading

The importance of the text and task variables for teaching and testing are outlined below.

Teaching of Reading. The responses to the interview section reveal the significance of background information in building a contextual frame for finding the main idea. The need to develop each reader's knowledge of the world is stressed by this finding. To tell the subject what information in the text is important for him to cue on would probably be ineffective, since what is important depends on what is personally needed. Students would benefit, however, from an operational definition of main idea for narrative and for exposition. Understanding this underlying structure would help them structure their selection of information through the employing of strategies which might be more effective with one form than with the other.

Lastly, the subjects interviewed were limited in their ability to explain their mental operations. Vocabulary expressing these common processes might be taught along with the processes. Why they would want to find main idea should finally be explained to subjects. Mostly they perceive main idea as an end in itself.

Testing of Reading. Results of this study reveal that text structure and task are important variables which affect the evaluation of a child's ability to read. Furthermore, the insights gained from the study suggest that finding main idea is not necessarily a valid indicator of a child's ability to comprehend the meaning of the passage. A child may be able to explain the meaning of the passage, yet fail in stating that explanation in a generalized statement of main idea. Likewise, he may understand the passage but not how to answer multiple choice questions. For this reason, there is a need to teach children how to answer questions, especially multiple choice questions. Tests may be measuring test wiseness rather than reading comprehension.

Some standardized reading tests do not recognize the effects of text structure or task on the finding of main idea. The implications of this research are that finding the main idea for narrative is more difficult than finding the main idea for exposition. Also, passages which imply main idea are more difficult. Most important is the fact that the variables of task, length, idea structure and form relate to produce differing levels of difficulty as well as differing operational expectations.

Lastly, the study revealed that comprehension is not an all or nothing process. Children can often comprehend a majority of the passage, but tests often only measure the final product. Furthermore, the answer given for the question may reflect one reader's biases and not account for the multiplicity of meanings one work has the potential to express.

Suggestions for Further Research

This research study generated several questions which require further research and study:

1. Since only proficient and very proficient readers were interviewed, a further study is required to observe the use of strategies and context of less proficient readers. A comparison of the two groups' responses could then be used to clarify in what way the habits of less proficient readers differed. Ways of helping the less proficient readers could then be pin-pointed.

2. Only grade six subjects were used. Similar observations of students at other grade levels could serve to clarify the developmental stages in finding main idea.

3. The effects of text difficulty on students' use of strategies and context requires observation. In this study, only material that

was classified as being easy to understand for grade six children was used. A very different pattern of processing may emerge given the task of understanding a difficult passage.

4. The comparison of expository and narrative passages requires further research to qualify the findings of this research which indicate that subjects are less able to find the main idea of narrative passages. If further study corroborates these results, a further study could explore why recalling information from narrative passages is easier than recalling information from expository text (Furniss, 1979) yet finding the main idea is more difficult with narrative text.

5. This study revealed that the reader selected information from the text according to the purpose he had for processing. How the purpose affects the reader's selection of context requires further clarification.

6. The development of metastrategy awareness and the development of the conceptualization of main idea requires observation at several age levels.

Conclusion

> "For the tradition is that a definition...shall
> serve as the key to a very large building."
> (Robinson, 1954, p. 163)

While two separate studies seemingly took place, only two points of view were used to examine the question of how a reader uses main idea in the process of comprehending text.

Previously, two specific definitions of main idea existed. One explained main idea as a product or answer produced by the reader, and often this answer was assumed to lie in the text. This definition was used primarily in statistical studies. The second specific definition attempted to explain main idea as a process used by the reader to comprehend text. This definition is used primarily in descriptive studies. What was missing was a more general definition which would relate the process of finding main idea to the product, main idea within the whole process of comprehension. This study explored main idea from both points of view. In clarifying the role of the reader, as well as what aspects of text and task influence the reader's processing of information, and his answer, the researcher was able to formulate a conceptual definition of main idea which included the process and product as it relates to comprehending text.

The formulation of the definition serves to bridge the gap between the statistical and descriptive studies related to the field. Previous definitions produced "keys" to small rooms within "the building". Because they were so specific they appeared to be contradictory. The general definition evolving from this study places the previous definitions in perspective.

Thus, this study has provided a key for future research that it provides a general understanding of the overall process of finding main idea as it relates to comprehending. Paradoxically, this global definition also serves to illuminate the limitations of both kinds of analysis which are based on only partial definitions of the concept of main idea. Future studies will conceivably relate the specifics of text and reader to the overall conceptualization of main idea within the act of comprehending.

This study not only provided a system of relations but also stressed the importance of reader flexibility in his interacting with text. While, on the one hand, he may consciously use the formulation of a main idea to organize and remember the information he selects, on the other hand, he may not. Therefore, the reader should be given the key and shown how to use it. It should not be thrust upon him.

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APPENDICES

APPENDIX A

SELECTED PASSAGES

Keeping Cool

The day is hot. Beads of sweat cover your face. Your mouth feels dry. The only thing you can think about is a tall glass of ice-cold water. Well, you are not alone. People have been thinking like this for ages. And they have been doing something about it.

Some ancient people cooled their drinks with ice or snow. The Greeks thought that ice cooled the body and made it more active. Without ice, they thought, a person became lazy. Rich Romans spent a lot of time and money to have ice during their hot summers. Slaves were sent up into the mountains. There they packed ice and snow into straw-covered wagons. Then they hauled the wagons back to their masters.

In Egypt there are few mountains and the air is always hot. So there is almost no snow or ice. But the ancient Egyptians had other ways to cool drinks. First, they boiled water. Then they left it all night in clay vases to cool. In the morning they wet the outside of the vases. They placed the vases in deep pits lined with reeds. The reeds and clay kept the heat away from the water. This allowed the Egyptians to have cool drinks for many days.

In some parts of the world there is more than enough ice in the winter. The problem in the past was how to save this ice through the summer.

In the early United States, George Washington used to have "ice harvests". Washington would cut blocks of ice from the ponds near his home at Mount Vernon. Then he stored it in his icehouses. It stayed as ice for months.

By about 1950 many people in the United States were collecting ice. It was needed not only for cooling drinks but for keeping things from spoiling. Butchers, fishermen, and farmers needed ice. It kept their goods fresh before being shipped to market and while on the way there, too.

Much of the ice came from parts of the Hudson River. Some also came from the clear lakes of the Northeast end of Canada.

As soon as the ice in these areas reached a certain thickness, it was cut into blocks. A horse pulling a cutter (that is, a bar with sharp steel wheels) was driven across the frozen part of the water. The wheels cut back and forth until large blocks had been carved out.

Next workers with axes cut the blocks loose. Finally, the blocks were floated to the icehouses on the shore.

The first icehouses in the United States were made of wood. This was fine when the ice was taken away in horse-drawn wagons. But then railway lines were built to haul the ice. The wooden houses became dangerous and had to be replaced. The icehouse owners feared that sparks from the train engines would set the wood on fire. So brick houses were built. They cost more, but they were safe.

The brick buildings had double walls and thick roofs. Workers stacked ice blocks in the houses. They left space between the blocks. This kept the blocks from melting together. The ice stayed in the houses until it was needed. It could be held there even in the summer.

Much of this ice was shipped to tropical countries. First it was moved by train to port cities. There it was loaded onto ships and packed into tin boxes covered with sheepskins. Weeks later, the ship would dock. Then people would enjoy the relief of a cold drink on a hot day.

Tricky Tongues

Stand in front of a mirror. Open your mouth. Say "ah-h." What do you see? Your tongue.

Your tongue is very important to you. It helps you chew and swallow food. And it has an even more important job. It helps you talk!

Other animals need tongues too, even though they don't speak. Some animals wouldn't have food if it weren't for their tongues. Their tongues are their most important tool for getting food. And they use their tongues to "handle" food as they chew and swallow.

Snakes use their tongues to find prey, or animals to eat. When a snake flicks out its tongue, the tongue picks up smells from the air and ground. When the snake draws in its tongue, it placed the tongue near two pits in the roof of its mouth. These pits do the same job your nose does—they smell things. So, thanks to its tongue, a snake can follow the scent of an animal.

After a snake has caught its prey and has begun to swallow, it no longer needs the tongue. It just slips its tongue into a covering on the floor of its mouth.

Most animals' tongues are fastened at the back of the mouth. But the tongues of most frogs and toads and a few salamanders are fastened at the front! They can shoot their sticky tongues forward to catch insects.

The stars of this shooting-tongue parade are chameleons. Their tongues can reach a distance as long as their body and tail, and even longer! Spying an insect, a chameleon slowly moves into striking distance. In an instant, the chameleon zips out its tongue, captures the prey with the sticky tip, and pulls it back into its mouth. When not using its tongue, the chameleon bunches it up like a jack-in-the-box.

The anteater would never be able to satisfy its giant appetite for ants and termites by picking them up one at a

time. It has to get food in king-size amounts. Its tongue helps it do this.

When an anteater finds an ant or termite nest, it tears the nest apart with its sharp front claws. Then it jabs into the nest with its very long tongue. The insects stick by the hundreds!

They stick because the tongue is coated with gluelike saliva. An anteater's tongue gets a new coating of saliva every time the animal draws its tongue back into its mouth.

Giraffe tongues are about as long as the anteater's. The tongues of giraffes are prehensile. That means that they can curl their tongues around leaves. Then they pull the leaves from trees.

Members of the woodpecker family capture their prey with different types of slender, hard-tipped tongues. One common type of tongue is spear-shaped. Woodpeckers use it to spear large insects. First the woodpecker uses its bill to dig into an insect's tunnel in a dead tree. Then out comes the long tongue. It twists and feels along the tunnel until ZAP! it stabs its prey.

If you've ever been licked by a cat you know how rough its tongue feels. The middle of a cat's tongue has short, fat, pointed bumps. The bumps help cats lick meat off the bones of prey. They also work like the teeth of a comb when cats clean themselves.

Every animal's tongue is designed to perform in a special way. Next time you see a tongue in action, take a really close look at it. You will see how tricky some tongues can be!

How Chimps and Babies Grow and Learn

Baby chimps and human babies grow and learn in different ways. One scientist raised a baby chimp at home with his own baby son, Donald. The two were treated the same. They played with the same toys. They were taken on walks together. They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was the first to follow orders like "Come here." She was stronger than Donald. She could use her hands and fingers better. But after many months, Donald began to catch up. He was the first to start drawing instead of just scribbling. And Donald learned to do something the chimp never learned to do - pronounce words and talk.

An Interesting Story

Breakfast has a story behind it. The word breakfast is made up of two smaller words, break and fast. When someone fasts, it means he or she doesn't eat. Most people fast from bedtime until they rise in the morning. They break their fast when they eat breakfast. Spoonerism is an odd word. It comes from the name of the Reverend W. A. Spooner, who often got his words mixed up. He he wanted to say, "May I show you to your seat?" he might say instead, "May I sew you to your sheet?" When people mix up their speech in this way, they have made a spoonerism.

Taking the Plunge

Betsy's best chance was freestyle. She hoped that she'd swim in a single event, not one of the relays, because she would hate to make the relay team lose.

At last the coach announced the freestyle single event: "Marti Cooper."

Betsy sighed softly. She wouldn't be swimming in that event. Well, Marti's best time was 35 seconds, and hers was only 38.2. Marti would swim freestyle in the relay, too. It was the last event, and Marti usually brought the relay team to victory.

The Bay Side team was good, but the West Bay Rockets seemed to be even better. They won the first event easily.

Then it was time for the nine- to ten-year-old girls' freestyle. The starter shouted, "Swimmers, take your marks!" Betsy waited for the crack of the pistol——BANG! The swimmers hit the water.

Marti pulled ahead immediately, took the turn at the pool's end perfectly, hardly breaking the water, and was almost halfway back before her opponent even began her turn. Marti swam the last three strokes without a breath and touched the wall. They had won! Now they were tied, and everyone jumped up, cheering.

Betsy clapped and yelled, "Yea, yea, Marti!" But where was Marti? Betsy looked at the pool and saw the coach helping her out. She was limping.

"Coach," Marti said, her face wrinkled with pain, "it hurts." She pointed to the calf of her leg.

"You probably pulled a muscle," the coach said. "Sit down." Then he looked up and said, "Betsy, you swim freestyle in the relay."

Betsy just stood there, her face burning. "Me swim in the relay! Oh no, not when it's this close!" She saw the other members of the relay team standing together and heard one of the girls ask, "Isn't there someone else?"

Before Betsy was ready, it was time for the relay. Four girls would swim two lengths each, and each girl would swim a different stroke. Betsy would be last, swimming freestyle, and would have to catch up if they were behind, or stay ahead if they were leading!

The gun fired and Janet was off. She was leading! She came back to the starting block, touched the wall, and Karen dived in. Karen swam with powerful strokes, but the girl from West Bay was even faster and stronger and came back to the block four lengths ahead of Karen.

Then Patty dived in, swimming the butterfly. She took the turn two lengths ahead of the West Bay swimmer, but it was a bad turn and the West Bay swimmer was gaining! Betsy climbed up on the block ready for action.

Patty and her opponent hit the wall together and Betsy dived in. Her arms pulled strongly, her feet kicked like a motor. She touched the wall, made a beautiful turn, and raced back. She was almost at the finish and put out her hand. She had made it! She lifted her head and saw the West Bay swimmer beside her. The judges checked their stopwatches. Betsy held her breath, wondering if she had won.

"West Bay, 34.7, Bay Side, 34.9."

Betsy felt tears welling up in her eyes. Just two-tenths of a second behind! She walked slowly towards the bench to get her towel. But the rest of the relay team was blocking her way. "I'm sorry—" she began.

"Sorry?" Patty said laughing. "Didn't you see your time?"

"But they won," Betsy said. "Their time was 34.7."

"Silly," said Karen, "you went from 38.2 to 34.9 — 3.3 seconds off your best time!"

"But Marti would have won it."

"Marti's best time is 35 seconds! You beat that! Wait till next week! We'll beat them. Right, girls?"

"Right!" They put their arms around Betsy. "Come on, dry off. We can't afford to lose another champion freestyler!"

Mary Jo's Responsibility

Every time Mary Jo saw a dog, any dog, she wished it belonged to her.

"I would rather have a dog than anything else on earth," she said at least twice a week, usually at the dinner table. She often read the ads in the classified section under "Pets for Sale" out loud to her parents.

"A good dog owner must take the full responsibility for her pet." said her father.

"I would be responsible," said Mary Jo.

It looked as if fate were on her side. A new pet shop opened in town.

She showed her parents the big opening day ad in the newspaper. She read: "Special for This Opening. Small, lovable, mixed-breed puppies. Low price while they last!"

"Can't we go down to see the new pet shop? And the puppies?" she begged.

"All right, Mary Jo. I think you're old enough to take care of a puppy." said her father.

"Oh!" shouted Mary Jo. "Let's go!"

"They are cute," her mother said. They stood gazing down at a little pen full of puppies in the new pet shop.

"Cute!" said Mary Jo. "They're the sweetest creatures ever born in this world!"

Her father laughed. "Which one do you want?"

She barely hesitated. One little furry baby had wobbled over to lick her fingers the minute she knelt beside the pen.

"This one," she said.

The first thing the family did when they got home was to put newspapers all over the kitchen floor. Mary Jo turned a small table sideways in the doorway so that the puppy could not go into the rest of the house.

"It's only until you're housebroken," she told him when he sniffed inquiringly at the table.

Mary Jo named the puppy "Teddy" because he looked so much like a small teddy bear. He even squeaked like one.

He squeaked and cried—especially at night. No matter how cozy Mary Jo made his bed in the kitchen, or how many times Teddy yawned at bedtime, he always awoke as soon as the house was still. He awoke and cried as if his heart would break. Mary Jo put an old toy dog in bed with him. She hoped he would think it was a friend. But he didn't.

Mary Jo staggered sleepily from her warm bed to the kitchen a dozen times a night. She talked to Teddy. She sang to him. As long as she was there, he was happy. As tired as she was, Mary Jo could never feel angry with him because he was so joyful each time she appeared at the kitchen door and stepped over the table.

But by the end of the first week, she could hardly get up in the mornings. Everyone looked tired because, although Mary Jo was the one who got up to soothe him, Teddy woke the others with his piercing, sad little cries.

Then one morning Mary Jo's mother found her asleep on the paper-covered floor.

"Is this ever going to end?" Mary Jo's mother asked at breakfast. "I don't remember ever hearing of any puppy crying as many nights as this one has."

"I'm beginning to wish we had never seen that dog!" said her father wearily.

I'm responsible, thought Mary Jo. I've got to think of something to keep Teddy quiet.

That afternoon she went to the basement to get some old newspapers for the kitchen floor. She saw something there that gave her an idea.

After dinner that night she said, "You'll be able to sleep tonight. I've thought of a way to keep Teddy quiet."

"What is it?" asked her mother.

"You'll see," said Mary Jo. She went down to the basement.

Her parents heard her lugging something up the stairs. It was an old folding bed.

"I'm going to sleep in the kitchen until Teddy is housebroken and can sleep in my room," she said.

Her mother and father looked at each other.

"Why not?" said her father. "That's probably the only thing that will solve the problem."

And it did. Mary Jo thought, I'm responsible, as she snuggled down on the old bed beside Teddy's bed. And Teddy slept without crying once all night long!

Lily

Lily sat down in the bus. She closed her eyes for a moment and thought about her morning. As she got out of bed, she had tripped over one of her shoes. When she was getting dressed, she had pulled a button off her new sweater. At breakfast, she had spilled her glass of milk. At least she had arrived at the bus stop on time. "What a day", she thought. Suddenly, Lily stiffened! "Oh no!", she cried out. She reached for her lunch box. It wasn't on the seat or under the seat either. She would be without lunch today. She had left her lunch box on the table. Everything had seemed to have gone wrong for Lily this Monday morning!

The Faithful Dog

Once upon a time, a prince had a large, beautiful hunting dog named Sam. Sam loved his master, but most of all he loved the prince's baby son. One day the prince called for Sam to go hunting. The dog just lay down beside the baby and refused to move. When the prince came home after the hunt, Sam came to the door to meet him. The dog was scratched and bloody. The startled prince rushed to the baby's room, where he saw that the crib was turned over on the floor. The prince grabbed a stick and ran toward Sam. Then the prince saw a huge wolf lying in a corner of the room. The wolf had been wounded in the leg and was very frightened. The prince's son was playing happily nearby.

APPENDIX B

PILOTED PASSAGES AND STUDENT RESPONSES TO QUESTIONS

Keeping Cool

The day is hot. Beads of sweat cover your face. Your mouth feels dry. The only thing you can think about is a tall glass of ice-cold water. Well, you are not alone. People have been thinking like this for ages. And they have been doing something about it.

Some ancient people cooled their drinks with ice or snow. The Greeks thought that ice cooled the body and made it more active. Without ice, they thought, a person became lazy. Rich Romans spent a lot of time and money to have ice during their hot summers. Slaves were sent up into the mountains. There they packed ice and snow into straw-covered wagons. Then they hauled the wagons back to their masters.

In Egypt there are few mountains and the air is always hot. So there is almost no snow or ice. But the ancient Egyptians had other ways to cool drinks. First, they boiled water. Then they left it all night in clay vases to cool. In the morning they wet the outside of the vases. They placed the vases in deep pits lined with reeds. The reeds and clay kept the heat away from the water. This allowed the Egyptians to have cool drinks for many days.

In some parts of the world there is more than enough ice in the winter. The problem in the past was how to save this ice through the summer.

In the early United States, George Washington used to have "ice harvests". Washington would cut blocks of ice from the ponds near his home at Mount Vernon. Then he stored it in his icehouses. It stayed as ice for months.

By about 1950 many people in the United States were collecting ice. It was needed not only for cooling drinks but for keeping things from spoiling. Butchers, fishermen, and farmers needed ice. It kept their goods fresh before being shipped to market and while on the way there, too.

Much of the ice came from parts of the Hudson River. Some also came from the clear lakes of the Northeast end of Canada.

As soon as the ice in these areas reached a certain thickness, it was cut into blocks. A horse pulling a cutter (that is, a bar with sharp steel wheels) was driven across the frozen part of the water. The wheels cut back and forth until large blocks had been carved out.

Next workers with axes cut the blocks loose. Finally, the blocks were floated to the icehouses on the shore.

The first icehouses in the United States were made of wood. This was fine when the ice was taken away in horse-drawn wagons. But then railway lines were built to haul the ice. The wooden houses became dangerous and had to be replaced. The icehouse owners feared that sparks from the train engines would set the wood on fire. So brick houses were built. They cost more, but they were safe.

The brick buildings had double walls and thick roofs. Workers stacked ice blocks in the houses. They left space between the blocks. This kept the blocks from melting together. The ice stayed in the houses until it was needed. It could be held there even in the summer.

Much of this ice was shipped to tropical countries. First it was moved by train to port cities. There it was loaded onto ships and packed into tin boxes covered with sheepskins. Weeks later, the ship would dock. Then people would enjoy the relief of a cold drink on a hot day.

Keeping Cool

Control Factors: Expository, Implicit, Long

Recognize

1. The title that best describes the most important idea of this passage is:
   - [✓ a.] Keeping Cool
   - b. How Ice is Made
   - c. Reasons for Making and Storing Ice

2. The author mainly tells you that:
   - a. There are many ways to keep drinks cool.
   - [✓ b.] Throughout history people have tried to find ways to save ice through the summer.
   - c. On a hot day a cool drink is very refreshing.

Produce

1. Write a title that best describes the most important idea of this passage.

How to Keep Things Cool

The Hamburger: The Dish That's Been Eaten With Relish

"How do you want it? Rare? Medium? Well done? Right! One hamburger coming up!"

That's a familiar cry to today's hamburger lovers. We can have our meat cooked any way we want it. But whoever ate the first burgers couldn't. They had no choice. The first hamburgers weren't cooked at all. They were eaten raw.

We don't know when or where the first hamburgers were eaten. But during the Stone Age people scraped away at large chunks of raw meat. They had no metal tools, so they used sharp stones. It was easier to chew small bits of raw meat than to bite right into large, tough slabs.

It is thought that the hamburger, as we know it, came to us from the Tartars. The Tartars were a people who once lived in Central Asia. They were herders. They wandered across the dry, windy land with their flocks of sheep in search of good grazing land. They were also a fierce people. They rode their horses across the plains on raids.

The Tartars were always on the move. So they often made a quick meal from the meat of a slaughtered sheep. They did not take the time to build a fire. They used their knives to scrape bits of meat into a mound or patty. This made the meat more tender. They ate the "hamburger" meat raw.

In the thirteenth century A.D. the Tartars swept westward. They took their foods with them. They conquered Russia. The Tartars ruled Russia until the fifteenth century. During that time the Russians adopted some of the Tartar food customs. They formed a taste for raw chopped meat. The Russian meat patty came from beef cattle rather than from sheep. They called it "beef Tartar" or "steak Tartar". Today you may see "steak tartare" on a restaurant menu. It is a mound of chopped beef served raw.

Meanwhile, at about the time the Tartars took over Russia, some towns in Germany were starting to trade by sea. Hamburg was one of them. German sea captains brought back goods from Russia. They also brought back the custom of eating small mounds of chopped raw beef.

To the Germans the raw beef had little taste. They thought that it should be served with side dishes of foods such as pickles and chopped raw onions. They also liked to drop a raw egg yolk into the middle of the meat patty.

It was someone in Hamburg who thought of cooking beef Tartar before eating it. Perhaps the raw meat had been standing too long and was not as fresh as it should have been. In any case, a thick mound of meat mixed with salt, pepper, onion and raw egg somehow got grilled or broiled or fried. It had a crust on the outside. It was tender and juicy on the inside. The cooked patty was a huge success. It was to become known to the world as "the hamburger". It was named for the town it came from.

Then the burger was on the move again. During the years from 1830 to 1900, large numbers of Germans moved to the United States. Many of the foods they brought with them became popular American foods. There were hamburgers from Hamburg and frankfurters from Frankfurt. There were also pretzels, potato salad, dill pickles, rye bread and many other foods.

It is thought that the very first burger-on-a-bun, however, was created in the United States and introduced at the St. Louis World's Fair in 1904. It was soon to rise to fame as one of the best-liked foods in the country.

During World War I the word "hamburger" was frowned upon for a time. The United States was at war with Germany. Anti-German feeling ran high in America. Beef patties were sometimes called "Salisbury steaks" instead. But after the war the burger's old name came back into use. And burgers soon were sold by the thousands.

It was after World War II that the burger did more travelling. Many Americans went to visit or live in Europe and other parts of the world. They introduced their own well-liked dish to people all around the world. The hamburger has really come a long way! It's a dish that's been eaten with relish!

The Hamburger: The Dish That's Been Eaten With Relish

Control Factors: Expository, Implicit, Long

Recognize

1. The best title for this passage is:

   [✓ a.] History of the Hamburger

   b. How the First Hamburger Was Made

   c. How Hamburgers Became Popular

Produce

1. This article mainly tells

   us about the hamburger

2. Write a title which best explains to the reader what this article is about.

   The Creation of the Hamburger

What is Lightning—Besides Scary?

The stage is set. Dark clouds fill the sky. Light comes in bright flashes. Then there is a loud crash. Nature is giving an exciting and sometimes frightening show. It's a thunderstorm.

It's not a show that's put on just once in awhile. Almost two thousand thunderstorms are taking place somewhere over the earth at any given moment. Lightning strikes the earth about one hundred times each second.

What is lightning? It's a huge electric spark. This big spark may jump from cloud to cloud. Or it may jump from cloud to earth. You've seen it flash across the sky. And you've seen it strike straight down.

Lightning has always been a marvel to people. In times past, lightning was thought to have magic powers. Long, long ago it was thought that lightning was thrown by the gods. At times it was taken as a warning. At other times it was a sign of good luck. Places touched by lightning were considered very special. People have always respected lightning.

Lightning was a complete mystery before 1752. No one knew what it was. It was Benjamin Franklin who decided to experiment. He had made a small spark of electricity with a cell. He wanted to find out if that spark was the same as the lightning he watched in the sky. Franklin's kite and key are nearly as well known to us as he is.

Today our study of lightning is scientific. Still, we are sometimes frightened when it strikes nearby. We feel the charged air, see the flash, and hear the loud CRACK!

When lightning strikes, the air through which it travels becomes hot very quickly. The heat splits the air. That split causes a loud, sharp noise. When the lightning has passed, waves of air tumble together again.

When lightning is near, the sharp crack of thunder is heard. When lightning is far off, thunder growls and rumbles. Sometimes both the crack and the rumble are heard.

The speed of light is much greater than that of sound. It takes about five seconds for a sound to travel a mile. So you can find out how far off lightning is in miles. Just count the seconds between the lightning and the thunder. Then divide by five. If you count ten seconds, the lightning is two miles away.

If lightning goes from cloud to cloud, it does no harm. But lightning that goes from a cloud to the earth may do a great deal of damage. Harm to property by lightning costs huge sums of money every year.

Still, lightning does far more good than harm. Without it, plants could not exist. And without plants, people could not exist.

A large part of our air is nitrogen. It is a food that plants must have. Millions of tons of nitrogen float over each square kilometer of the earth. But in this form it won't dissolve in water. Therefore, plants can't use it. Before they can use it, some chemical changes must take place. And this is where lightning comes in.

Air is made white-hot by lightning. In such great heat, nitrogen combines with the oxygen in the air. In this form it will dissolve in water. It becomes a weak acid. This is carried down to earth by rain. It is this acid that causes the sharp scent you smell during the thunderstorm.

When it reaches the earth, the acid mixes with other minerals. Then it becomes the food that plants need. In simple language, lightning changes air into fertilizer for plants.

So lightning might be scary, but it has its good points too.

What Is Lightning - Besides Scary?

Control Factors: Expository, Implicit, Long

Recognize	Produce
1. Choose the best title: [✓ a.] What is Lightning - Besides Scary? b. The Dangers of Lightning c. The Mystery of Lightning	1. What is this story all about? This story is about lightning and how it works.
	2. Write a title that best describes what this story is about. Lightning's good things and bad.

Behaviors of Crows

Crows usually build their nests high in an evergreen tree. The nests are bulky structures of sticks, twigs, grasses, and tree bark. They are often decorated with shiny stones or sparkling bits of glass. The eggs in this next, usually from four to six, are pale green and thickly marked with brown. When hatched, the hungry young birds stay in the nest about three weeks. They eat their weight in food every day. By the time they are ready to leave, they look almost like their parents except that their coats have less shine. Their parents show them the surrounding land and teach them the rules of the group of fifty or sixty crows nesting nearby.

Behavior of Crows

Control Factors: Expository, Implicit, Short

Recognize

1. This article describes:

   [✓ a.] the nesting and learning behaviors of crows

   b. where crows live

   c. how crows hatch and grow

Produce

1. This article mainly tells that

   A crows next and the babies

2. This article mainly tells that

   The nests are hard and the baby crows

Rattlesnake!

A rattlesnake's tail is formed like a stack of tiny teacups. Each cup is attached to the next, and each has three small bumps on it. When the snake shakes, or "rattles," its tail (about fifty times a second), the bumps on one cup tap against the bumps on the next cup very rapidly. This makes a sound more like a hissss than a rattle. Like most animals, rattlesnakes don't want to make trouble. They would rather hide than fight a dangerous enemy like a human. But if someone happens to surprise a rattlesnake, the snake will probably rattle with all its might. This is the snake's way of saying "Stay back!" And if someone surprises or frightens a rattlesnake too much, it won't give any warning. It will just strike!

Rattlesnake!

Control Factors: Expository, Implicit, Short

Recognize

1. This passage mainly tells
   - [✓ a.] how a snake shakes its tail to warn its enemies
   - b. snakes shake their tails because they are frightened
   - c. snakes shake their tails to say "Stay back!"

Produce

1. This passage mainly tells you

   A rattle snake is not that harmful when it gets scared it pretects itself

2. This passage mainly tells you that

   rattlesnakes make their rattle with there tail

An Interesting Story

A long time ago, the story goes, there lived a man called Lord Sandwich. Lord Sandwich loved to sit for hours playing games with his friends. One day he was so busy playing that he had no time to stop and have his lunch. He ordered "some meat pressed between two pieces of bread." And so today a sandwich is called a sandwich after the man who invented it. Coconut is another interesting word. A Spanish explorer found a coconut when he came to the Americas. He turned it upside down and noticed three dots on the bottom like this ∵ . He thought it looked like a funny face, so he called it coco, which is the Spanish word for "funny face."

An Interesting Story

Control Factors: Expository, Implicit, Short

Recognize	Produce
1. The best title for this passage is: a. The Story Behind the Word b. Spoonerisms [✓ c.] The Many Meanings of a Word	1. What is the best title for this passage? What's Behind a Word?

Tricky Tongues

Stand in front of a mirror. Open your mouth. Say "ah-h." What do you see? Your tongue.

Your tongue is very important to you. It helps you chew and swallow food. And it has an even more important job. It helps you talk!

Other animals need tongues too, even though they don't speak. Some animals wouldn't have food if it weren't for their tongues. Their tongues are their most important tool for getting food. And they use their tongues to "handle" food as they chew and swallow.

Snakes use their tongues to find prey, or animals to eat. When a snake flicks out its tongue, the tongue picks up smells from the air and ground. When the snake draws in its tongue, it places the tongue near two pits in the roof of its mouth. These pits do the same job your nose does—they smell things. So, thanks to its tongue, a snake can follow the scent of an animal.

After a snake has caught its prey and has begun to swallow, it no longer needs the tongue. It just slips its tongue into a covering on the floor of its mouth.

Most animals' tongues are fastened at the back of the mouth. But the tongues of most frogs and toads and a few salamanders are fastened at the front! They can shoot their sticky tongues forward to catch insects.

The stars of this shooting-tongue parade are chameleons. Their tongues can reach a distance as long as their body and tail, and even longer! Spying an insect, a chameleon slowly moves into striking distance. In an instant, the chameleon zips out its tongue, captures the prey with the sticky tip, and pulls it back into its mouth. When not using its tongue, the chameleon bunches it up like a jack-in-the-box.

The anteater would never be able to satisfy its giant appetite for ants and termits by picking them up one at a time. It has to get food in king-size amounts. Its tongue helps it do this.

When an anteater finds an ant or termite nest, it tears the nest apart with its sharp front claws. Then it jabs into the nest with its very long tongue. The insects stick by the hundreds!

They stick because the tongue is coated with gluelike saliva. An anteater's tongue gets a new coating of saliva every time the animal draws its tongue back into its mouth.

Giraffe tongues are about as long as the anteater's. The tongues of giraffes are prehensile. That means that they can curl their tongues around leaves. Then they pull the leaves from trees.

Members of the woodpecker family capture their prey with different types of slender, hard-tipped tongues. One common type of tongue is spear-shaped. Woodpeckers use it to spear large insects. First the woodpecker uses its bill to dig into an insect's tunnel in a dead tree. Then out comes the long tongue. It twists and feels along the tunnel until ZAP! it stabs its prey.

If you've ever been licked by a cat you know how rough its tongue feels. The middle of a cat's tongue has short, fat, pointed bumps. The bumps help cats lick meat off the bones of prey. They also work like the teeth of a comb when cats clean themselves.

Every animal's tongue is designed to perform in a special way. Next time you see a tongue in action, take a really close look at it. You will see how tricky some tongues can be!

Tricky Tongues

Control Factors: Expository, Explicit, Long

Recognize

1. The main idea of this passage is:
   - a. Tongues can be tricky!
   - b. Every animal's tongue is designed to perform in a special way.
   - [✓ c.] Tongues are important.

Produce

1. What do you think the author was trying to tell you in this passage?

How important your tongue is

Training the Senses

Human beings are the most curious of all creatures. We want to find out about things in the world around us. The most common way to do this is to use our five senses. These are sight, hearing, touch, smell, and taste.

But sometimes our senses may fool us with what is called an illusion. An illusion is something that appears to be true but is not. There are some nights when we can look at the moon and be fooled. It seems to be close enough to touch. But we know it is many thousand of kilometers away.

Optical illusions are tricks that our eyes play on us. Motion pictures, for example, are based on an optical illusion. The motion picture camera takes many still pictures, one immediately after the other. But when these still pictures are shown on the screen, they seem to be moving. This is because the pictures are flashed in such fast sequence.

People in hot, dry places sometimes see mirages. A common mirage is the sight of what appears to be a pond of water in the middle of the desert. At some time you might have ridden in a car on a hot day and seen what looked like puddles in the road ahead. The puddles disappeared as you came closer to them. Those puddles were mirages.

Illusions and mirages are not very common. Instead of seeing what is not there, most of us do not see everything that is there. Have you ever passed a tree many times without really seeing it? The tree had no special importance to you. Then one day you "saw" the tree for the first time. Perhaps it was in bloom. Or maybe its leaves had changed from green to orange.

Another time, perhaps, you were reading a book and suddenly realized that someone was talking to you or calling your name. When we concentrate, or think hard about something, we sometimes do not notice other things. We learn to shut out sensations that we do not want to notice or do not understand. Sometimes we learn to shut out so much that we become very poor observers.

A college professor once arranged to have a trick played on his students. Halfway through his class, two people ran into the room, one after the other. They had a short, furious argument.

Then the two people ran out of the room and back to the hall. The students heard a noise that sounded as if someone had been hurt. Then the professor told his students that the two people were actors. The whole scene had been staged. He asked the students to tell what they had seen and heard. What did the persons look like? What clothes did they wear? What had they said? How long had they argued?

The students did not agree on the details. Few of them were near the truth. That day they learned that most people do not observe very closely. Even eyewitnesses are not always sure of what they have seen.

But people can train their powers of observation to a remarkable degree. An orchestra conductor's trained ear can pick out the sounds of each instrument and hear wrong notes. People who repair cars know what to listen for when they hear a car engine run. A doctor learns many things about persons who are ill by looking at their eyes, down their throats, and at their general appearance. For newspaper reporters, police officers, and many others, learning to observe carefully is an important part of their jobs.

Perhaps you want to be an artist. If so, it is important for you to view things carefully. Look at the trees in the spring. How many shades of green do you see? In winter, take a good look at the snow. Is it always pure white?

You can train your ears to hear many sounds. Sit on the front steps of your home. Close your eyes. Listen to the sounds round you. Try to separate the sounds you hear.

What do you want to find out about things? The world is round you, ready for you to observe it.

Training the Senses

Control Factors: Expository, Explicit, Long

Recognize

1. The sentence that best tells what this passage is about is:
    - a. The most common way to do this is to use our five senses.
    - b. Optical illusions are tricks that our eyes play on us.
    - [✓ c.] The world is round you, ready for you to observe it.

Produce

1. This passage is mainly about

   that humans are the most curious of all creatures

2. The sentence that best tells what this passage is about is

   But sometimes our senses may fool us with what is called an illusion.

Bats

When you think of ghosts and witches, do you also think of bats? Many people do! Maybe this is because bats live in dark places and are active at night.

Most bats are harmless, but they're feared because few people know much about them.

How many bats live on earth? Billions and billions and billions! There are more bats than any other mammal except rodents. And they live almost everywhere! Scientists have found about 850 species, or kinds, of bats in almost all parts of the world. But most bats live in the tropics.

What do bats eat? Nearly all North American bats dine on insects. But there are fruit bats that eat flowers, fruits, nectar, and pollen. Some bats feast on other animals' blood. Others eat fish, small mammals, and birds.

Bats' feeding habits may be harmful to people. For example, in the tropics, certain fruit bats cause large losses to farmers. Vampire bats may spread the disease of rabies when they bite livestock. But more often than not, bats are helpful. Some of them pollinate flowers. Others eat large numbers of insect pests.

Can bats really fly? No matter where they live, all bats have one thing in common. They are the only mammals that fly.

A bat's wings are thin, leathery, elastic pieces of skin that stretch between its body and its arms and fingers. You can get an idea of what this skin is like. Spread the thumb and first finger of your hand. Use the fingers of your other hand to pinch the double layer of skin that is stretched thin. That skin is a little like a bat's wing - only the bat's wing is much bigger and stretches from all its fingers to its body, back, and tail!

Are bats blind? No, they are not. The saying "blind as a bat" is misleading. Most bats have good eyesight, but they don't use their eyes to hunt or fly at night.

How do bats know where they are going? Bats fly by echolocation. They use echoes to find food and to avoid flying into things in the dark. In a sense, bats "see" with their ears.

While flying, a bat sends out sounds from its mouth or nose. These are short, high squeaks. Bats can hear these sounds, but most humans cannot.

These sounds bounce off objects. Then the sounds echo back to the bat's ears. The bat's brain judges the echoes quickly. At once the bat knows the size and movements of an object and how far away it is.

Do bats fly into your hair? The belief that bats like to swoop into a person's hair in incorrect. But a bat may fly close to your head, and that may frighten you.

Although most bats won't hurt you, don't handle them. Like most wild animals, bats can become frightened if they are trapped or handled, and they may bite. Some bats have rabies, and you can catch this disease if you are bitten by such a bat.

Are bats unclean? No, bats have a musky smell, but they are not unclean. A bat spends time every day washing itself with its tongue. It also grooms itself by combing its fur with its toes.

What do bats do during the day? Tropical fruit bats sleep in trees during the day, hanging by their toes. Most North American bats roost in dark places. Caves make good roosts for large bat colonies, especially in the winter.

Where do bats go in the winter? During the winter, many North American bats move to warmer regions where insects are still active. Other bats hibernate; that means they take a long winter's sleep. Bats hibernate in places such as caves, where they are protected from harsh winter weather.

During hibernation a bat's body processes slow down, and this saves energy. Its body temperature drops. Its breathing almost stops. During its winter-long deep sleep, a bat lives on the extra fat it gained during the late summer.

Why do some people like bats? They're such interesting creatures! Who wouldn't be fascinated by a harmless mammal that flies with its hands, "sees" with its ears, washes with its tongue, and sleeps hanging by its toes?

Bats

Control Factors: Expository, Explicit, Long

Recognize

1. What was the author's main purpose in writing this story?
   - a. To tell all about the bat's life cycle.
   - [✓ b.] To answer several common questions about bats.
   - c. To show the reader how to care for a bat.
2. Which of these statements about the author is true?
   - [✓ a.] The author tries to correct some common misunderstandings about bats.
   - b. The author reaches the conclusion that bats serve no useful purpose.
   - c. The author clearly believes that bats make house pets that are just as good as dogs.

Produce

1. This story mainly tells that

   bats are strange.

2. The best title of this passage would be

   Bats.

Mothers Don't Always Care

Mother animals don't always take care of their young. Take the sea horse, for example. The male sea horse has a special pouch on his belly. The female squirts about six hundred eggs into the pouch through an opening at the top. Then she swims off. Soon the male's belly becomes fatter as the eggs begin to grow. Fifty-five days later the eggs hatch a few dozen at a time and the babies leave the pouch. The young sea horses are able to care for themselves right away. They start to feed on tiny sea creatures and plants. They had better stay away from their father, though. After all that work he is hungry and quite likely to eat some of them.

Mothers Don't Always Care

Control Factors: Expository, Explicit, Short

Recognize

1. The title that best describes the main idea of this passage is:

   a. Sea Horses

   [✓ b.] Caring for Themselves

   c. Staying Away From Father

2. The title that best describes the main idea of this passage is:

   a. Sea Horses

   [✓ b.] Caring for Themselves

   c. Staying Away From Father

3. The title that best describes the main idea of this passage is:

   [✓ a.] Sea Horses

   b. Caring for Themselves

   c. Staying Away From Father

Produce

1. Write a title for this passage and tell how your title describes the main idea of the passage.

   Deserting parents. The parents leaving there children.

2. The most important statement in this paragraph is

   after all that work he was hungry and quite likely to eat some of them.

Finding Out About Words

Nearly every word has a story behind it. The word breakfast, for example, is made up of two smaller words, break and fast. When someone fasts, it means he or she doesn't eat. Most people fast from bedtime until they rise in the morning. They break their fast when they eat breakfast. Spoonerism is an odd word. It comes from the name of the Reverend W. A. Spooner, who often got his words mixed up. If he wanted to say, "May I show you to your seat?" he might say instead, "May I sew you to your sheet?" When people mix up their speech in this way, they have made a spoonerism.

Finding Out About Words

Control Factors: Expository, Explicit, Short

Recognize

1. A title that best describes what this passage is about is:
   - [✓ a.] Finding Out About Words
   - b. A History of the Sandwich
   - c. Funny Face

Produce

1. This passage mainly says that

   some everyday foods have funny backgrounds.

2. Write a title that best describes what this passage is about.

   The Inventors

How Chimps and Babies Grow and Learn

Baby chimps and human babies grow and learn in different ways. One scientist raised a baby chimp at home with his own baby son, Donald. The two were treated the same. They played with the same toys. They were taken on walks together. They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was the first to follow orders like "Come here." She was stronger than Donald. She could use her hands and fingers better. But after many months, Donald began to catch up. He was the first to start drawing instead of just scribbling. And Donald learned to do something the chimp never learned to do - pronounce words and talk.

How Chimps and Babies Grow and Learn

Control Factors: Expository, Explicit, Short

Recognize

1. A title that best describes what this passage is about is:
   - a. Chimps and Humans
   - b. Fast Learners
   - [✓ c.] Growing and Learning in Different Ways

Produce

1. Write a title that best describes what this passage is about.

   Boy Chimp Fun

2. Write a title that best describes what this passage is about.

   Human Baby and a Chimp and how they grow

3. Write a title that best describes what this passage is about.

   What humans do but chimps can't.

A Baker and His Neighbour

Once there was a baker who worked very hard. Every night he baked bread and cakes, and every morning he sold them to the townspeople. The baker was rich because he collected a lot of money. Now the baker had a neighbor who was a different kind of man. He didn't care about money. But he did enjoy the wonderful aroma of the freshly baked bread and cake. Every day he stood outside his house and smelled the delicious bakery smells. This made the baker angry.

"I buy all the flour and sugar and raisins," the baker grumbled. "Then I work hard all night baking. And what happens? My neighbour enjoys all the good bakery smells without paying anything!"

Finally the baker decided to do something. He went to his neighbour.

"You enjoy the aroma of my bread and cake every day," he said. "Now you must pay."

The neighbour began to laugh. He laughed so hard his neighbours came, and when the baker repeated his demand for money, they began to laugh, too. The neighbours told their neighbours and soon everyone in town began to laugh at the baker. They would go into his shop and take a deep breath and then ask the baker how much they owed for the sniff. The baker grew angrier and angrier. Finally he could stand it no longer. He took his neighbour to court.

"The judge will make you pay," the baker said. "Then you'll stop laughing!"

The judge listened to the baker without a smile.

"Come to court one week from today," he said to both men. "And you," he said to the neighbour, "bring a bag with a hundred gold coins."

The next week the baker and his neighbour came to court. "Give the baker the bag of gold coins," the judge said. Sadly the neighbour handed the bag to the baker. "Now count the coins," said the judge.

The baker was only too happy to obey. He spread the coins out on a table and counted them.

"They're all here," he said happily.

"Good," said the judge. "Now return the coins to your neighbour."

The baker was surprised and so was his neighbour. The judge stood up.

"The case is settled," he said to the baker. "Your neighbour has smelled your bread and cake and you have touched and seen his gold."

A Baker and His Neighbor

Control Factors: Narrative, Implicit, Long

Recognize

1. This story mainly:
   - a. tells how silly the baker was
   - [✓ b.] explains that you cannot make someone pay for reacting with pleasure to something that is yours.
   - c. teaches that there is no difference between money you can touch and aromas you can smell.

2. The title that best explains what this story is about is:
   - [✓ a.] A Baker and His Neighbor
   - b. Justice
   - c. Smell and Touch

Produce

1. Write a title that best explains what this passage is about.

A Baker and His Neighbor

Taking the Plunge

Betsy's best chance was freestyle. She hoped that she'd swim in a single event, not one of the relays, because she would hate to make the relay team lose.

At last the coach announced the freestyle single event: "Marti Cooper."

Betsy sighed softly. She wouldn't be swimming in that event. Well, Marti's best time was 35 seconds, and hers was only 38.2. Marti would swim freestyle in the relay, too. It was the last event, and Marti usually brought the relay team to victory.

The Bay Side team was good, but the West Bay Rockets seemed to be even better. They won the first event easily.

Then it was time for the nine- to ten-year-old girls' freestyle. The starter shouted, "Swimmers, take your marks!" Betsy waited for the crack of the pistol—BANG! The swimmers hit the water.

Marti pulled ahead immediately, took the turn at the pool's end perfectly, hardly breaking the water, and was almost halfway back before her opponent even began her turn. Marti swam the last three strokes without a breath and touched the wall. They had won! Now they were tied, and everyone jumped up, cheering.

Betsy clapped and yelled, "Yea, yea, Marti!" But where was Marti? Betsy looked at the pool and saw the coach helping her out. She was limping.

"Coach," Marti said, her face wrinkled with pain, "it hurts." She pointed to the calf of her leg.

"You probably pulled a muscle," the coach said. "Sit down." Then he looked up and said, "Betsy, you swim freestyle in the relay."

Betsy just stood there, her face burning. "Me swim in the relay! Oh no, not when it's this close!" She saw the other members of the relay team standing together and heard one of the girls ask, "Isn't there someone else?"

Before Betsy was ready, it was time for the relay. Four girls would swim two lengths each, and each girl would swim a different stroke. Betsy would be last, swimming freestyle, and would have to catch up if they were behind, or stay ahead if they were leading!

The gun fired and Janet was off. She was leading! She came back to the starting block, touched the wall, and Karen dived in. Karen swam with powerful strokes, but the girl from West Bay was even faster and stronger and came back to the block four lengths ahead of Karen.

Then Patty dived in, swimming the butterfly. She took the turn two lengths ahead of the West Bay swimmer, but it was a bad turn and the West Bay swimmer was gaining! Betsy climbed up on the block ready for action.

Patty and her opponent hit the wall together and Betsy dived in. Her arms pulled strongly, her feet kicked like a motor. She touched the wall, made a beautiful turn, and raced back. She was almost at the finish and put out her hand. She had made it! She lifted her head and saw the West Bay swimmer beside her. The judges checked their stop-watches. Betsy held her breath, wondering if she had won.

"West Bay, 34.7, Bay Side, 34.9."

Betsy felt tears welling up in her eyes. Just two-tenths of a second behind! She walked slowly towards the bench to get her towel. But the rest of the relay team was blocking her way. "I'm sorry—" she began.

"Sorry?" Patty said laughing. "Didn't you see your time?"

"But they won," Betsy said. "Their time was 34.7."

"Silly," said Karen, "you went from 38.2 to 34.9 — 3.3 seconds off your best time!"

"But Marti would have won it."

"Marti's best time is 35 seconds! You beat that! Wait till next week! We'll beat them. Right, girls?"

"Right!" They put their arms around Betsy. "Come on, dry off. We can't afford to lose another champion freestyler!"

Taking the Plunge

Control Factors: Narrative, Implicit, Long

Recognize

1. Which sentence best describes what this story is about?
   - [✓ a.] Betsy's teammates were proud of her even though she lost the race.
   - b. Betsy was accepted by the team when she proved that she could swim faster than her teammates.
   - c. Betsy did not feel like a part of the swim team because she doubted her own abilities.

Produce

1. Write a title which describes what this story is mainly about.

Try until you get it right

Reindeer Winter

One day as summer was ending, Kili went running in the hills behind the camp. His long legs were growing strong, and he loved to stretch them by racing across the tundra. He leaped over the last thin snowbanks and thin rivers running down to the fjord below.

Suddenly he fell. He tumbled over and over, down a snowy slope. Scrambling up, he found that one of his legs had been twisted. He could still walk but had to move very slowly. Kili limped carefully back towards home.

He returned very late. Kili was surprised and frightened by what he found. The camp was gone! While he was struggling to walk home, the Laplanders had struck their tents, rounded up the other reindeer, and moved on to some new campsite.

Kili was terrified. He had never been so alone before. He must find the herd before winter, or how could he live through the long dark months of snow?

For two days Kili followed the trail of the Laplanders. But the herd moved fast, and Kili's injured leg made walking difficult.

Then the snow came. It fell thick and cold and white, causing the Laplanders' trail to vanish. Kili stopped and looked in every direction. He was lost and didn't know where to look for his family. But he knew he must set out to find them.

The snow grew deeper, the days grew darker, and Kili's brown fur turned almost white to match the world round him. While he could, he scratched holes in the snow to graze on the frozen tundra below. Later he nibbled at the bark of trees and even tried pine needles. They tasted terrible, but they were food.

Once when Kili happened on a long, smooth slope of snow, he saw people gliding down the hill on long, flat sticks tied to their feet. The people went terribly fast, and as soon as they reached the bottom of the hill, they went right back up to the top and started back down again. One girl lost her balance on the sticks and rolled over and over in the snow. She jumped up, laughing and saw Kili standing nearby. The girl reached into her pocket and pulled out a little bag with half a sandwich wrapped in it. She held out the food, and Kili grabbed the sandwich and ran. The tinkly sound of the girl's laughter followed him into the forest.

That night he was followed by a pack of wolves. They chased him across the snow, waiting for him to grow tired. But Kili had been running all winter, and his young legs were even stronger than those of the wolves. Gradually their howls faded into the distance, and Kili ran on, happy that he had grown so swift.

Then one day Kili found himself on a hilltop, looking down at a valley where the snow was just beginning to thaw. A herd of reindeer was grazing on the new moss. Wide tents were scattered here and there, and people in bright caps worked beside them.

Kili looked at the captive herd to which he had once belonged, then gazed over his shoulder at the wilderness of hills and lakes that he had conquered that winter. Down at the camp were comfort and safety, but behind him was liberty. Spring was coming to Norway, and Kili had earned the right to enjoy the spring in freedom.

Turning his back on the camp, Kili sprang joyfully towards the wild, dangerous life that he had been forced to face alone and that he had learned to love.

Reindeer Winter

Control Factors: Narrative, Implicit, Long

Recognize	Produce
1. Which of the following titles best summarizes what this story is about? a. I Don't Want to Be a Reindeer b. What Every Reindeer Knows [✓ c.] Freedom is Best	1. Write a title that best summarizes what this story is about. The boy that lived through winter
	2. This story mostly tells that and Kili had earned the right to enjoy the spring in freedom

5

The Faithful Dog

Once upon a time, a prince had a large, beautiful hunting dog named Sam. Sam loved his master, but most of all he loved the prince's baby son. One day the prince called for Sam to go hunting. The dog just lay down beside the baby and refused to move. When the prince came home after the hunt, Sam came to the door to meet him. The dog was scratched and bloody. The startled prince rushed to the baby's room, where he saw that the crib was turned over on the floor. The prince grabbed a stick and ran toward Sam. Then the prince saw a huge wolf lying in a corner of the room. The wolf had been wounded in the leg and was very frightened. The prince's son was playing happily nearby.

The Faithful Dog

Control Factors: Narrative, Implicit, Short

Recognize

1. The main idea of this story is:
   - [✓ a.] dogs are loyal and faithful friends
   - b. dogs are strong and protective
   - c. man's senses are not as developed as dog's senses
   - d. wolves are very dangerous playmates

Produce

1. This story mainly tells you that

   Same is faithful to his master

2. What is the purpose of the title?

   To get you to read the story. It also says Sam was a faithful dog.

Turtle

John sat down in the middle of the living room. He tried hard to hold back a tear, but is started to roll down his cheek. His pet was gone and it was his fault. He had been careless. His friend tried to comfort him, but John felt terrible. The boys sat together for a long while. Neither one said anything. The room became dim. It was getting dark. Suddenly John's friend cried "Look! That stack of papers is moving!" John ran over to the spot where the newspapers were piled high. Just at that moment, his turtle peeked his head out from between the papers. Both boys laughed out loud. John was so pleased to see his pet once more. He decided that he had better keep a closer watch on his pet from then on.

Turtle

Control Factors: Narrative, Implicit, Short

Recognize

1. The title that best describes what this story was meant to tell you is:
   - a. Turtle
   - [✓ b.] Taking Care of Your Pet
   - c. The Small Turtle
2. This story is meant to show you that
   - [✓ a.] you have to take care of your pets
   - b. losing a pet can be an unhappy experience
   - c. turtles can get lost easily because they are so small

Produce

1. Write a title that best describes what this story was meant to tell you.

   Sadness turns to happiness

Captured!

Lunch made me sleepy, so I curled up to take a nap. With sleep came a wonderful dream. I was stretched out on a lovely green lawn with the sun warming my body. Birds were singing gaily overhead, and little yellow daffodils peeked out through the grass. I reached out to touch one—and suddenly there was no sun.

A heavy shadow had shut out the light. Something grabbed me and I cried out, fighting to get free. It was no use; I was travelling through space. This was no dream. This was real. I had been captured, and there was nothing I could do about it!

Soon I felt something solid under my feet. I could move, but it was hard to stand. My legs felt like rubber. Where was I?

Cautiously, I stepped forward. Ouch! I bumped into a wall. I tried other directions, but every time I hit a wall. Four walls and no door. I was in a cell!

Suddenly my cell started to rock. I began to feel ill.

Sit down, I told myself, and think!

After several minutes, I felt some cold air from above. I looked up but could see nothing. Where was the air coming from? Suddenly I knew: There was no roof on my cell! I had discovered a way out.

Stepping carefully towards a wall, I attempted to reach the opening. I wasn't tall enough, so I sat down again to think. The cell was still rocking. Maybe I could throw myself against one of the walls and tip the cell over. Again and again I rushed at the wall, but I finally gave up, defeated.

Sitting down, I tried to gather the energy for one more try. If that didn't work—Wait, the movement stopped!

A minute later I heard an earthshaking bang as I felt a different motion. My cell was moving up and down, not back and forth. I couldn't keep my footing as I was bounced about. There was a cruel jolt—and all was still.

I remained in a corner, waiting fearfully. What would happen next? Whatever it was, I'd be ready. Seconds later there was a horrible crunch, and the wall nearest to me was ripped away. Beyond the opening, I could see a dazzling light.

"Now's your chance," I told myself, cautiously crawling to the opening. At first, I saw nothing but a shiny wood floor. Then I saw them.

Feet! Giant feet! They seemed about to surround me, so I quickly retreated. I could be ground to smithereens out there! Of course, that's what they were planning—that's why they made it wasy for me to escape! Well, I'd fool them; I wouldn't move.

No. I couldn't stay. I had to try to get out.

Once again I crept to the opening, but the feet were still there. Then I noticed something else. Near two of the feet, four round posts rose from the floor. The posts were topped by a thick, low roof. I could easily squeeze under it, but those giant feet couldn't.

I took a deep breath and moved quickly. Racing out of my cell, I skidded under the thick roof. I made it! My legs felt like rubber again; but I was safe for the moment.

What would happen next? I wondered. I didn't have long to wait, however, for I heard voices high above the roof.

"Oh, Donald, she's afraid of us!"

"Well, naturally," came the reply. "That must have been a very frightening trip for such a little puppy."

Captured!

Control Factors: Narrative, Explicit, Long

Recognize	Produce
1. What was the author's main purpose in writing this story? a. To show how a puppy should be treated when it first comes into a home. b. To show how people usually feel when they bring a puppy home. [✓ c.] To show how a puppy might feel if it were put in a box and carried home by strangers.	1. What is the main idea of this story? A puppy is being taken to his new home and he is scared
2. What is the main idea of the story? a. A puppy should be treated very kindly when it first comes into a home. b. People are very excited and happy when they bring a puppy home. [✓ c.] A puppy feels very frightened when it is put in a box and carried home by strangers.	

Mary Jo's Responsibility

Every time Mary Jo saw a dog, any dog, she wished it belonged to her.

"I would rather have a dog than anything else on earth," she said at least twice a week, usually at the dinner table. She often read the ads in the classified section under "Pets for Sale" out loud to her parents.

"A good dog owner must take the full responsibility for her pet." said her father.

"I would be responsible," said Mary Jo.

It looked as if fate were on her side. A new pet shop opened in town.

She showed her parents the big opening day ad in the newspaper. She read: "Special for This Opening. Small, lovable, mixed-breed puppies. Low price while they last!"

"Can't we go down to see the new pet shop? And the puppies?" she begged.

"All right, Mary Jo. I think you're old enough to take care of a puppy." said her father.

"Oh!" shouted Mary Jo. "Let's go!"

"They are cute," her mother said. They stood gazing down at a little pen full of puppies in the new pet shop.

"Cute!" said Mary Jo. "They're the sweetest creatures ever born in this world!"

Her father laughed. "Which one do you want?"

She barely hesitated. One little furry baby had wobbled over to lick her fingers the minute she knelt beside the pen.

"This one," she said.

The first thing the family did when they got home was to put newspapers all over the kitchen floor. Mary Jo turned a small table sideways in the doorway so that the puppy could not go into the rest of the house.

"It's only until you're housebroken," she told him when he sniffed inquiringly at the table.

Mary Jo named the puppy "Teddy" because he looked so much like a small teddy bear. He even squeaked like one.

He squeaked and cried——especially at night. No matter how cozy Mary Jo made his bed in the kitchen, or how many times Teddy yawned at bedtime, he always awoke as soon as the house was still. He awoke and cried as if his heart would break. Mary Jo put an old toy dog in bed with him. She hoped he would think it was a friend. But he didn't.

Mary Jo staggered sleepily from her warm bed to the kitchen a dozen times a night. She talked to Teddy. She sang to him. As long as she was there, he was happy. As tired as she was, Mary Jo could never feel angry with him because he was so joyful each time she appeared at the kitchen door and stepped over the table.

But by the end of the first week, she could hardly get up in the mornings. Everyone looked tired because, although Mary Jo was the one who got up to soothe him, Teddy woke the others with his piercing, sad little cries.

Then one morning Mary Jo's mother found her asleep on the paper-covered floor.

"Is this ever going to end?" Mary Jo's mother asked at breakfast. "I don't remember ever hearing of any puppy crying as many nights as this one has."

"I'm beginning to wish we had never seen that dog!" said her father wearily.

I'm responsible, thought Mary Jo. I've got to think of something to keep Teddy quiet.

That afternoon she went to the basement to get some old newspapers for the kitchen floor. She saw something there that gave her an idea.

After dinner that night she said, "You'll be able to sleep tonight. I've thought of a way to keep Teddy quiet."

"What is it?" asked her mother.

"You'll see," said Mary Jo. She went down to the basement.

Her parents heard her lugging something up the stairs. It was an old folding bed.

"I'm going to sleep in the kitchen until Teddy is housebroken and can sleep in my room," she said.

Her mother and father looked at each other.

"Why not?" said her father. "That's probably the only thing that will solve the problem."

And it did. Mary Jo thought, I'm responsible, as she snuggled down on the old bed beside Teddy's bed. And Teddy slept without crying once all night long!

Mary Jo's Responsibility

Control Factors: Narrative, Explicit, Long

Recognize

1. Choose the sentence from the story that best summarizes all of the details in the story.
    - [✓ a.] Mary Jo thought, "I'm responsible", as she snuggled down on the old bed beside Teddy's bed.
    - b. Mary Jo staggered sleepily from her warm bed to the kitchen a dozen times a night.
    - c. "I'm beginning to wish we had never seen that dog!" said her father wearily.

2. Choose the sentence which best summarizes all of the details in the story.
    - a. Mary Jo decided that having a puppy was too much bother.
    - [✓ b.] Mary Jo learned what it's like to be a responsible person.
    - c. Mary Jo found out that keeping a puppy quiet at night was quite a chore.

Produce

1. The main idea of this story is

   A girl is responsible for her pet.

The Fisherman and the King's Chamberlain

Once there was a king who would not eat a meal unless it included a dish of fried fish. His cook prepared the best food in the land. He served the king tender meats, tasty vegetables, and ripe fruits. But if there were no fish, the king would angrily leave the table.

One day a great storm began to blow. The waters were so rough that people could not catch any fish. The king would not eat his breakfast because there was no fried fish, and he was annoyed. Lunchtime came. There was no fish, and the king became angry. Dinnertime came. Still there was no sign of fish. The king was not desperate.

He went out an announcement to the people of his land. "Anyone who can bring me a fish will be given any reward named," he said.

But the storm continued to rage, and the waters stayed rough. Then at dusk, a man who was fishing from the shore caught a fat and oily fish. He ran to the king's palace.

The guards saw the fish in the man's hand. They threw open the gates for him. Word was passed that the fisherman was to be allowed to reach the king's chamber right away. But at the chamber door, the chamberlain, or king's assistant, stopped him.

"Promise me half your reward. Then I will let you in," the chamberlain told the man.

"One-tenth," bargained the fisherman.

"Oh, no," said the chamberlain. "One-half, and no less."

"Agreed," replied the fisherman.

Happily the chamberlain told the king that a fish had arrived. The king was thrilled. He seized the fish from the fisherman's hand and rushed into the kitchen.

After the fish was fried, the king ate it with his meal. Later, he lay back, hugging his well-filled stomach.

"Fisherman," he said, "name your reward. Do you want a priceless jewel? Or do you wish a well-paid job? Perhaps you desire a treasure from the palace?"

"No, sire," replied the fisherman. "I want just twenty lashes with your cane."

"Twenty lashes!" exclaimed the king. "I offer you any reward you request. And you ask for twenty lashes!"

"Yes, sire. That is what I desire," said the fisherman.

"Then I will do as you ask," said the king. And he whispered to his servant to beat the fisherman lightly.

"No, sire," said the fisherman. "Not so softly. I want to be hit hard."

The king was troubled. But he ordered the servant to use more strength. After the fisherman had been given ten lashes, he jumped away.

"Were you hit too hard?" the king asked.

"No, sire," explained the fisherman. "But the other ten lashes are your chamberlain's share."

The chamberlain then had to tell what he had done. But he pleaded, "My lord, I asked for half of his reward, not his punishment."

"But this is my reward, and not my punishment." argued the fisherman.

The king was confused. He went for his wise daughter, the princess, to come. "She will decide the case," said the king.

The princess arrived and listened to the men. Then she said, "My lord, the chamberlain and the fisherman were partners in a business. They agreed to share the reward. But in a partnership, the agreement to share does not mean to divide only the rewards. It means that gain and loss, success and failure are shared. Reward and punishment are also to be shared."

The king accepted his daughter's decision. He ordered his servant to give the chamberlain ten good lashes. Then the king said to the chamberlain, "Greed does not pay. You will leave this palace and the fisherman will be the new chamberlain."

The Fisherman and the King's Chamberlain

Control Factors: Narrative, Explicit, Long

Recognize

1. Choose the title that gives the moral of the story.
   - a. Easily Fooled
   - [✓ b.] The Fisherman and the King's Chamberlain
   - c. Justice for Greed

Produce

1. Tell in your own words what you think the moral of this story is.

Every deal has 2 sides to it. (a bad and a good.)

Lily

Lily sat down in the bus. She closed her eyes for a moment and thought about her morning. As she got out of bed, she had tripped over one of her shoes. When she was getting dressed, she had pulled a button off her new sweater. At breakfast, she had spilled her glass of milk. At least she had arrived at the bus stop on time. "What a day", she thought. Suddenly, Lily stiffened! "Oh no!", she cried out. She reached for her lunch box. It wasn't on the seat or under the seat either. She would be without lunch today. She had left her lunch box on the table. Everything had seemed to have gone wrong for Lily this Monday morning!

Lily

Control Factors: Narrative, Explicit, Short

Recognize

1. In this passage the author tells you that:

   [✓ a.] Everything had seemed to go wrong this day

   b. Lily closed her eyes for a moment and thought about her morning

   c. Haste makes waste

Produce

1. After reading the story, you can conclude that

   that Lily did not have a good morning or probably in school something else might happen

2. The most important sentence in the story is

   Everything had seemed to have gone wrong for Lily this morning

   because it tells why the writer wrote the story.

Ant

A thirsty ant went to the bank of a river to get a drink and was carried away by the strong current. A dove that was perched in a nearby tree saw what was happening. She dropped a leaf in the water. The ant climbed on it and floated to the bank. Shortly afterwards, a bird catches crept up to the tree. He laid a trap for the dove, who was still sitting in the branches. The ant saw the man's plan and bit him on the foot. His cry of pain warned the dove of the danger, and she flew off. So you see, thankfulness will always find a way of showing itself.

Ant

Control Factors: Narrative, Explicit, Short

Recognize

1. This fable is meant to show that you
   - a. should be grateful
   - [✓ b.] can always find a way to pay back a good deed
   - c. should not try to catch doves
   - d. should be careful when you are near rivers.

2. The title that would best reveal the moral of this fable would be
   - a. The Dove and the Ant
   - b. Be Grateful
   - [✓ c.] Paying Back a Good Deed

Produce

1. A title that would best reveal the moral of this fable would be

The Ant and the Dove

APPENDIX C

SAMPLES OF TESTS

Name ______________________________

School ______________________________

TEST A

Directions to Teacher:

Please allow each student as much time as is necessary to complete the test.

Directions to Student:

There are 4 passages. Please read each passage carefully. After you read the passage, give the best answer that you can, to the question asked.

I.

Once upon a time, a prince had a large, beautiful hunting dog named Sam. Sam loved his master, but most of all he loved the prince's baby son. One day the prince called for Sam to go hunting. The dog just lay down beside the baby and refused to move. When the prince came home after the hunt, Sam came to the door to meet him. The dog was scratched and bloody. The startled prince rushed to the baby's room, where he saw that the crib was turned over on the floor. The prince grabbed a stick and ran toward Sam. Then the prince saw a huge wolf lying in a corner of the room. The wolf had been wounded in the leg and was very frightened. The prince's son was playing happily nearby.

1. In this passage, the author mainly tells you that:
    a. dogs are loyal and faithful friends
    b. dogs are strong and protective
    c. man's senses are not as developed as dog's senses.
    d. wolves are very dangerous playmates

II.

Mary Jo's Responsibility

Every time Mary Jo saw a dog, any dog, she wished it belonged to her.

"I would rather have a dog than anything else on earth," she said at least twice a week, usually at the dinner table. She often read the ads in the classified section under "Pets for Sale" out loud to her parents.

"A good dog owner must take the full responsibility for her pet." said her father.

"I would be responsible," said Mary Jo.

It looked as if fate were on her side. A new pet shop opened in town.

She showed her parents the big opening day ad in the newspaper. She read: "Special for This Opening. Small, lovable, mixed-breed puppies. Low price while they last!"

"Can't we go down to see the new pet shop? And the puppies?" she begged.

"All right, Mary Jo. I think you're old enough to take care of a puppy." said her father.

"Oh!" shouted Mary Jo. "Let's go!"

"They are cute," her mother said. They stood gazing down at a little pen full of puppies in the new pet shop.

"Cute!" said Mary Jo. "They're the sweetest creatures ever born in this world!"

Her father laughed. "Which one do you want?"

She barely hesitated. One little furry baby had wobbled over to lick her fingers the minute she knelt beside the pen.

"This one," she said.

The first thing the family did when they got home was to put newspapers all over the kitchen floor. Mary Jo turned a small table sideways in the doorway so that the puppy could not go into the rest of the house.

"It's only until you're housebroken," she told him when he sniffed inquiringly at the table.

Mary Jo named the puppy "Teddy" because he looked so much like a small teddy bear. He even squeaked like one.

He squeaked and cried——especially at night. No matter how cozy Mary Jo made his bed in the kitchen, or how many times Teddy yawned at bedtime, he always awoke as soon as the house was still. He awoke and cried as if his heart would break. Mary Jo put an old toy dog in bed with him. She hoped he would think it was a friend. But he didn't.

Mary Jo staggered sleepily from her warm bed to the kitchen a dozen times a night. She talked to Teddy. She sang to him. As long as she was there, he was happy. As tired as she was, Mary Jo could never feel angry with him because he was so joyful each time she appeared at the kitchen door and stepped over the table.

But by the end of the first week, she could hardly get up in the mornings. Everyone looked tired because, although Mary Jo was the one who got up to soothe him, Teddy woke the others with his piercing, sad little cries.

Then one morning Mary Jo's mother found her asleep on the paper-covered floor.

"Is this ever going to end?" Mary Jo's mother asked at breakfast. "I don't remember ever hearing of any puppy crying as many nights as this one has."

"I'm beginning to wish we had never seen that dog!" said her father wearily.

I'm responsible, thought Mary Jo. I've got to think of something to keep Teddy quiet.

That afternoon she went to the basement to get some old newspapers for the kitchen floor. She saw something there that gave her an idea.

After dinner that night she said, "You'll be able to sleep tonight. I've thought of a way to keep Teddy quiet."

"What is it?" asked her mother.

"You'll see," said Mary Jo. She went down to the basement.

Her parents heard her lugging something up the stairs. It was an old folding bed.

"I'm going to sleep in the kitchen until Teddy is housebroken and can sleep in my room," she said.

Her mother and father looked at each other.

"Why not?" said her father. "That's probably the only thing that will solve the problem."

And it did. Mary Jo thought, I'm responsible, as she snuggled down on the old bed beside Teddy's bed. And Teddy slept without crying once all night long!

2. In this passage the author mainly tells you that ________________

____

____.

III.

The day is hot. Beads of sweat cover your face. Your mouth feels dry. The only thing you can think about is a tall glass of ice-cold water. Well, you are not alone. People have been thinking like this for ages. And they have been doing something about it.

Some ancient people cooled their drinks with ice or snow. The Greeks thought that ice cooled the body and made it more active. Without ice, they thought, a person became lazy. Rich Romans spent a lot of time and money to have ice during their hot summers. Slaves were sent up into the mountains. There they packed ice and snow into straw-covered wagons. Then they hauled the wagons back to their masters.

In Egypt there are few mountains and the air is always hot. So there is almost no snow or ice. But the ancient Egyptians had other ways to cool drinks. First, they boiled water. Then they left it all night in clay vases to cool. In the morning they wet the outside of the vases. They placed the vases in deep pits lined with reeds. The reeds and clay kept the heat away from the water. This allowed the Egyptians to have cool drinks for many days.

In some parts of the world there is more than enough ice in the winter. The problem in the past was how to save this ice through the summer.

In the early United States, George Washington used to have "ice harvests". Washington would cut blocks of ice from the ponds near his home at Mount Vernon. Then he stored it in his icehouses. It stayed as ice for months.

By about 1950 many people in the United States were collecting ice. It was needed not only for cooling drinks but for keeping things from spoiling. Butchers, fishermen, and farmers needed ice. It kept their goods fresh before being shipped to market and while on the way there, too.

Much of the ice came from parts of the Hudson River. Some also came from the clear lakes of the Northeast end of Canada.

As soon as the ice in these areas reached a certain thickness, it was cut into blocks. A horse pulling a cutter (that is, a bar with sharp steel wheels) was driven across the frozen part of the water. The wheels cut back and forth until large blocks had been carved out.

Next workers with axes cut the blocks loose. Finally, the blocks were floated to the icehouses on the shore.

The first icehouses in the United States were made of wood. This was fine when the ice was taken away in horse-drawn wagons. But then railway lines were built to haul the ice. The wooden houses became dangerous and had to be replaced. The icehouse owners feared that sparks from the train engines would set the wood on fire. So brick houses were built. They cost more, but they were safe.

The brick buildings had double walls and thick roofs. Workers stacked ice blocks in the houses. They left space between the blocks. This kept the blocks from melting together. The ice stayed in the houses until it was needed. It could be held there even in the summer.

Much of this ice was shipped to tropical countries. First it was moved by train to port cities. There it was loaded onto ships and packed into tin boxes covered with sheepskins. Weeks later, the ship would dock. Then people would enjoy the relief of a cold drink on a hot day.

3. In this passage, the author mainly tells you that:
   - a. There are many ways to keep drinks cool.
   - b. Throughout history people have tried to find ways to save ice through the summer.
   - c. The first icehouses were created in Canada.
   - d. On a hot day a cool drink is very refreshing.

IV.

Baby chimps and human babies grow and learn in different ways. One scientist raised a baby chimp at home with his own baby son, Donald. The two were treated the same. They played with the same toys. They were taken on talks together. They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was the first to follow orders like "Come here." She was stronger than Donald. She could use her hands and fingers better. But after many months, Donald began to catch up. He was the first to start drawing instead of just scribbling. And Donald learned to do something the chimp never learned to do - pronounce words and talk.

4. In this passage, the author mainly tells you that ________
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____.

Name ______________________

School ______________________

TEST B

Directions to Teacher:

Please allow each student as much time as is necessary to complete the test.

Directions to Student:

There are 4 passages. Please read each passage carefully. After you read the passage, give the best answer that you can, to the question asked.

I.

Once upon a time, a prince had a large, beautiful hunting dog named Sam. Sam loved his master, but most of all he loved the prince's baby son. One day the prince called for Sam to go hunting. The dog just lay down beside the baby and refused to move. When the prince came home after the hunt, Sam came to the door to meet him. The dog was scratched and bloody. The startled prince rushed to the baby's room, where he saw that the crib was turned over on the floor. The prince grabbed a stick and ran toward Sam. Then the prince saw a huge wolf lying in a corner of the room. The wolf had been wounded in the leg and was very frightened. The prince's son was playing happily nearby.

1. In this passage, the author mainly tells you that ________

____

____

II.

Every time Mary Jo saw a dog, any dog, she wished it belonged to her.

"I would rather have a dog than anything else on earth," she said at least twice a week, usually at the dinner table. She often read the ads in the classified section under "Pets for Sale" out loud to her parents.

"A good dog owner must take the full responsibility for her pet." said her father.

"I would be responsible," said Mary Jo.

It looked as if fate were on her side. A new pet shop opened in town.

She showed her parents the big opening day ad in the newspaper. She read: "Special for This Opening. Small, lovable, mixed-breed puppies. Low price while they last!"

"Can't we go down to see the new pet shop? And the puppies?" she begged.

"All right, Mary Jo. I think you're old enough to take care of a puppy." said her father.

"Oh!" shouted Mary Jo. "Let's go!"

"They are cute," her mother said. They stood gazing down at a little pen full of puppies in the new pet shop.

"Cute!" said Mary Jo. "They're the sweetest creatures ever born in this world!"

Her father laughed. "Which one do you want?"

She barely hesitated. One little furry baby had wobbled over to lick her fingers the minute she knelt beside the pen.

"This one," she said.

The first thing the family did when they got home was to put newspapers all over the kitchen floor. Mary Jo turned a small table sideways in the doorway so that the puppy could not go into the rest of the house.

"It's only until you're housebroken," she told him when he sniffed inquiringly at the table.

Mary Jo named the puppy "Teddy" because he looked so much like a small teddy bear. He even squeaked like one.

He squeaked and cried——especially at night. No matter how cozy Mary Jo made his bed in the kitchen, or how many times Teddy yawned at bedtime, he always awoke as soon as the house was still. He awoke and cried as if his heart would break. Mary Jo put an old toy dog in bed with him. She hoped he would think it was a friend. But he didn't.

Mary Jo staggered sleepily from her warm bed to the kitchen a dozen times a night. She talked to Teddy. She sang to him. As long as she was there, he was happy. As tired as she was, Mary Jo could never feel angry with him because he was so joyful each time she appeared at the kitchen door and stepped over the table.

But by the end of the first week, she could hardly get up in the mornings. Everyone looked tired because, although Mary Jo was the one who got up to soothe him, Teddy woke the others with his piercing, sad little cries.

Then one morning Mary Jo's mother found her asleep on the paper-covered floor.

"Is this ever going to end?" Mary Jo's mother asked at breakfast. "I don't remember ever hearing of any puppy crying as many nights as this one has."

"I'm beginning to wish we had never seen that dog!" said her father wearily.

I'm responsible, thought Mary Jo. I've got to think of something to keep Teddy quiet.

That afternoon she went to the basement to get some old newspapers for the kitchen floor. She saw something there that gave her an idea.

After dinner that night she said, "You'll be able to sleep tonight. I've thought of a way to keep Teddy quiet."

"What is it?" asked her mother.

"You'll see," said Mary Jo. She went down to the basement.

Her parents heard her lugging something up the stairs. It was an old folding bed.

"I'm going to sleep in the kitchen until Teddy is housebroken and can sleep in my room," she said.

Her mother and father looked at each other.

"Why not?" said her father. "That's probably the only thing that will solve the problem."

And it did. Mary Jo thought, I'm responsible, as she snuggled down on the old bed beside Teddy's bed. And Teddy slept without crying once all night long!

2. In this passage the author mainly tells you that:
   a. parents sometimes make unreasonable demands
   b. everyone has some kind of responsibility
   c. a good dog owner must take responsibility for her pet
   d. raising a puppy isn't easy

III.

The day is hot. Beads of sweat cover your face. Your mouth feels dry. The only thing you can think about is a tall glass of ice-cold water. Well, you are not alone. People have been thinking like this for ages. And they have been doing something about it.

Some ancient people cooled their drinks with ice or snow. The Greeks thought that ice cooled the body and made it more active. Without ice, they thought, a person became lazy. Rich Romans spent a lot of time and money to have ice during their hot summers. Slaves were sent up into the mountains. There they packed ice and snow into straw-covered wagons. Then they hauled the wagons back to their masters.

In Egypt there are few mountains and the air is always hot. So there is almost no snow or ice. But the ancient Egyptians had other ways to cool drinks. First, they boiled water. Then they left it all night in clay vases to cool. In the morning they wet the outside of the vases. They placed the vases in deep pits lined with reeds. The reeds and clay kept the heat away from the water. This allowed the Egyptians to have cool drinks for many days.

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By about 1950 many people in the United States were collecting ice. It was needed not only for cooling drinks but for keeping things from spoiling. Butchers, fishermen, and farmers needed ice. It kept their goods fresh before being shipped to market and while on the way there, too.

Much of the ice came from parts of the Hudson River. Some also came from the clear lakes of the Northeast end of Canada.

As soon as the ice in these areas reached a certain thickness, it was cut into blocks. A horse pulling a cutter (that is, a bar with sharp steel wheels) was driven across the frozen part of the water. The wheels cut back and forth until large blocks had been carved out.

Next workers with axes cut the blocks loose. Finally, the blocks were floated to the icehouses on the shore.

The first icehouses in the United States were made of wood. This was fine when the ice was taken away in horse-drawn wagons. But then railway lines were built to haul the ice. The wooden houses became dangerous and had to be replaced. The icehouse owners feared that sparks from the train engines would set the wood on fire. So brick houses were built. They cost more, but they were safe.

The brick buildings had double walls and thick roofs. Workers stacked ice blocks in the houses. They left space between the blocks. This kept the blocks from melting together. The ice stayed in the houses until it was needed. It could be held there even in the summer.

Much of this ice was shipped to tropical countries. First it was moved by train to port cities. There it was loaded onto ships and packed into tin boxes covered with sheepskins. Weeks later, the ship would dock. Then people would enjoy the relief of a cold drink on a hot day.

3. In this passage, the author mainly tells you that ______________

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____

IV.

Baby chimps and human babies grow and learn in different ways. One scientist raised a baby chimp at home with his own baby son, Donald. The two were treated the same. They played with the same toys. They were taken on talks together. They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was the first to follow orders like "Come here." She was stronger than Donald. She could use her hands and fingers better. But after many months, Donald began to catch up. He was the first to start drawing instead of just scribbling. And Donald learned to do something the chimp never learned to do - pronounce words and talk.

4. In this passage the author mainly tells you that:
   - a. baby chimps learn faster than humans do
   - b. human babies learn faster than chimps do
   - c. chimps and humans grow and learn in the same way
   - d. chimps and humans grow and learn in different ways

Name ______________________

School ______________________

TEST C

Directions to Teacher:

Please allow each student as much time as is necessary to complete the test.

Directions to Student:

There are 4 passages. Please read each passage carefully. After you read the passage, give the best answer that you can, to the question asked.

I.

Lily sat down in the bus. She closed her eyes for a moment and thought about her morning. As she got out of bed, she had tripped over one of her shoes. When she was getting dressed, she had pulled a button off her new sweater. At breakfast, she had spilled her glass of milk. At least she had arrived at the bus stop on time. "What a day", she thought. Suddenly, Lily stiffened! "Oh no!", she cried out. She reached for her lunch box. It wasn't on the seat or under the seat either. She would be without lunch today. She had left her lunch box on the table. Everything had seemed to have gone wrong for Lily this Monday morning!

1. In this passage the author mainly tells you that:
   - a. Everything had seemed to go wrong this day.
   - b. Lily closed her eyes for a moment and thought about her morning.
   - c. Going to school on Mondays is particularly hectic.
   - d. Haste makes waste.

II.

Betsy's best chance was freestyle. She hoped that she'd swim in a single event, not one of the relays, because she would hate to make the relay team lose.

At last the coach announced the freestyle single event: "Marti Cooper."

Betsy sighed softly. She wouldn't be swimming in that event. Well, Marti's best time was 35 seconds, and hers was only 38.2. Marti would swim freestyle in the relay, too. It was the last event, and Marti usually brought the relay team to victory.

The Bay Side team was good, but the West Bay Rockets seemed to be even better. They won the first event easily.

Then it was time for the nine- to ten-year-old girls' freestyle. The starter shouted, "Swimmers, take your marks!" Betsy waited for the crack of the pistol—BANG! The swimmers hit the water.

Marti pulled ahead immediately, took the turn at the pool's end perfectly, hardly breaking the water, and was almost halfway back before her opponent even began her turn. Marti swam the last three strokes without a breath and touched the wall. They had won! Now they were tied, and everyone jumped up, cheering.

Betsy clapped and yelled, "Yea, yea, Marti!" But where was Marti? Betsy looked at the pool and saw the coach helping her out. She was limping.

"Coach," Marti said, her face wrinkled with pain, "it hurts." She pointed to the calf of her leg.

"You probably pulled a muscle," the coach said. "Sit down." Then he looked up and said, "Betsy, you swim freestyle in the relay."

Betsy just stood there, her face burning. "Me swim in the relay! Oh no, not when it's this close!" She saw the other members of the relay team standing together and heard one of the girls ask, "Isn't there someone else?"

Before Betsy was ready, it was time for the relay. Four girls would swim two lengths each, and each girl would swim a different stroke. Betsy would be last, swimming freestyle, and would have to catch up if they were behind, or stay ahead if they were leading!

The gun fired and Janet was off. She was leading! She came back to the starting block, touched the wall, and Karen dived in. Karen swam with powerful strokes, but the girl from West Bay was even faster and stronger and came back to the block four lengths ahead of Karen.

Then Patty dived in, swimming the butterfly. She took the turn two lengths ahead of the West Bay swimmer, but it was a bad turn and the West Bay swimmer was gaining! Betsy climbed up on the block ready for action.

Patty and her opponent hit the wall together and Betsy dived in. Her arms pulled strongly, her feet kicked like a motor. She touched the wall, made a beautiful turn, and raced back. She was almost at the finish and put out her hand. She had made it! She lifted her head and saw the West Bay swimmer beside her. The judges checked their stopwatches. Betsy held her breath, wondering if she had won.

"West Bay, 34.7, Bay Side, 34.9."

Betsy felt tears welling up in her eyes. Just two-tenths of a second behind! She walked slowly towards the bench to get her towel. But the rest of the relay team was blocking her way. "I'm sorry—" she began.

"Sorry?" Patty said laughing. "Didn't you see your time?"

"But they won," Betsy said. "Their time was 34.7."

"Silly," said Karen, "you went from 38.2 to 34.9 — 3.3 seconds off your best time!"

"But Marti would have won it."

"Marti's best time is 35 seconds! You beat that! Wait till next week! We'll beat them. Right, girls?"

"Right!" They put their arms around Betsy. "Come on, dry off. We can't afford to lose another champion freestyler!"

2. In this passage the author mainly tells you that: ____________

____

____

III.

Stand in front of a mirror. Open your mouth. Say "ah-h." What do you see? Your tongue.

Your tongue is very important to you. It helps you chew and swallow food. And it has an even more important job. It helps you talk!

Other animals need tongues too, even though they don't speak. Some animals wouldn't have food if it weren't for their tongues. Their tongues are their most important tool for getting food. And they use their tongues to "handle" food as they chew and swallow.

Snakes use their tongues to find prey, or animals to eat. When a snake flicks out its tongue, the tongue picks up smells from the air and ground. When the snake draws in its tongue, it placed the tongue near two pits in the roof of its mouth. These pits do the same job your nose does—they smell things. So, thanks to its tongue, a snake can follow the scent of an animal.

After a snake has caught its prey and has begun to swallow, it no longer needs the tongue. It just slips its tongue into a covering on the floor of its mouth.

Most animals' tongues are fastened at the back of the mouth. But the tongues of most frogs and toads and a few salamanders are fastened at the front! They can shoot their sticky tongues forward to catch insects.

The stars of this shooting-tongue parade are chameleons. Their tongues can reach a distance as long as their body and tail, and even longer! Spying an insect, a chameleon slowly moves into striking distance. In an instant, the chameleon zips out its tongue, captures the prey with the sticky tip, and pulls it back into its mouth. When not using its tongue, the chameleon bunches it up like a jack-in-the-box.

The anteater would never be able to satisfy its giant appetite for ants and termites by picking them up one at a

time. It has to get food in king-size amounts. Its tongue helps it do this.

When an anteater finds an ant or termite nest, it tears the nest apart with its sharp front claws. Then it jabs into the nest with its very long tongue. The insects stick by the hundreds!

They stick because the tongue is coated with gluelike saliva. An anteater's tongue gets a new coating of saliva every time the animal draws its tongue back into its mouth.

Giraffe tongues are about as long as the anteater's. The tongues of giraffes are prehensile. That means that they can curl their tongues around leaves. Then they pull the leaves from trees.

Members of the woodpecker family capture their prey with different types of slender, hard-tipped tongues. One common type of tongue is spear-shaped. Woodpeckers use it to spear large insects. First the woodpecker uses its bill to dig into an insect's tunnel in a dead tree. Then out comes the long tongue. It twists and feels along the tunnel until ZAP! it stabs its prey.

If you've ever been licked by a cat you know how rough its tongue feels. The middle of a cat's tongue has short, fat, pointed bumps. The bumps help cats lick meat off the bones of prey. They also work like the teeth of a comb when cats clean themselves.

Every animal's tongue is designed to perform in a special way. Next time you see a tongue in action, take a really close look at it. You will see how tricky some tongues can be!

3. In this passage the author mainly tells you that:
    a. your tongue is very important
    b. animals' tongues are designed to perform in special ways
    c. most animals' tongues are fastened at the back of the mouth
    d. tongues may be responsible for an animal's death

IV.

Breakfast has a story behind it. The word breakfast is made up of two smaller words, break and fast. When someone fasts, it means he or she doesn't eat. Most people fast from bedtime until they rise in the morning. They break their fast when they eat breakfast. Spoonerism is an odd word. It comes from the name of the Reverend W. A. Spooner, who often got his words mixed up. If he wanted to say, "May I show you to your seat?" he might say instead, "May I sew you to your sheet?" When people mix up their speech in this way, they have made a spoonerism.

4. In this passage the author mainly tells you that: ____________

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Name ______________________

School ______________________

TEST D

Directions to Teacher:

Please allow each student as much time as is necessary to complete the test.

Directions to Student:

There are 4 passages. Please read each passage carefully. After you read the passage, give the best answer that you can, to the question asked.

I.

Lily sat down in the bus. She closed her eyes for a moment and thought about her morning. As she got out of bed, she had tripped over one of her shoes. When she was getting dressed, she had pulled a button off her new sweater. At breakfast, she had spilled her glass of milk. At least she had arrived at the bus stop on time. "What a day", she thought. Suddenly, Lily stiffened! "Oh no!", she cried out. She reached for her lunch box. It wasn't on the seat or under the seat either. She would be without lunch today. She had left her lunch box on the table. Everything had seemed to have gone wrong for Lily this Monday morning!

1. In this passage the author mainly tells you that: ________

____

____

II.

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At last the coach announced the freestyle single event: "Marti Cooper."

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"But Marti would have won it."

"Marti's best time is 35 seconds! You beat that! Wait till next week! We'll beat them. Right, girls?"

"Right!" They put their arms around Betsy. "Come on, dry off. We can't afford to lose another champion freestyler!"

2. In this passage the author mainly tells you that:

   a. swimming can be a dangerous sport
   b. acceptance by others may depend on how well you perform
   c. taking a chance can be worthwhile
   d. Marti was a better swimmer than Betsy

III.

Stand in front of a mirror. Open your mouth. Say "ah-h." What do you see? Your tongue.

Your tongue is very important to you. It helps you chew and swallow food. And it has an even more important job. It helps you talk!

Other animals need tongues too, even though they don't speak. Some animals wouldn't have food if it weren't for their tongues. Their tongues are their most important tool for getting food. And they use their tongues to "handle" food as they chew and swallow.

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3. In this passage the author mainly tells you that: ____________

____

____

IV.

Breakfast has a story behind it. The word breakfast is made up of two smaller words, break and fast. When someone fasts, it means he or she doesn't eat. Most people fast from bedtime until they rise in the morning. They break their fast when they eat breakfast. Spoonerism is an odd word. It comes from the name of the Reverend W. A. Spooner, who often got his words mixed up. If he wanted to say, "May I show you to your seat?" he might say instead, "May I sew you to your sheet?" When people mix up their speech in this way, they have made a spoonerism.

4. In this passage the author mainly tells you that:

   a. words always have complicated origins

   b. words are difficult to understand

   c. spoonerisms were named after Spooner who always mixed up his words

   d. nearly every word has a story behind it

APPENDIX D

STRATEGY: CUEING ON PLOT AS EXPLAINED BY SUBJECT 21

APPENDIX D

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R: Tell me everything you can remember about how you found the main idea.

S28: OK, how I found the main idea? Well, in the beginning it was talking about how this girl really, really wanted a puppy and like, she'd talk about it every week and especially about at supper time. And so it told me that it was going to be about how this girl wanted a dog and how she's probably going to get one, but she might have some trouble. And that's what mainly popped into my head when I began reading the story.

R: When that popped into your head when you began reading the story, how did you use it as you read the story to help you figure out the main idea?

S28: I used that...I could understand more what she was trying to get to when she was talking to her parents and how she kept on circling ads and telling her parents about them and when all of a sudden a new pet shop opened and they said how the little puppies were really sweet, like really low in price. She just had to go see them. And then finally her parents agreed. And I thought, well, they're getting somewhere now.

R: OK. And then what? You thought they were getting somewhere, but then how did you get from there to finding out what the story is all about?

S28: The story was all about how the girl wanted a dog and when they were going to the pet shop I thought, well she's probably going to get one now, not even thinking about the other things that could happen. I thought, she's probably going to get a dog. And then, I kept on reading, and then I found out that her parents decided that they thought they were cute. And then Mary Jo sort of put on a thing like "well they're the cutest things I've ever seen" and stuff. And then if she did get a dog, I thought, well let's see what happens about how her parents are going to act towards the dog in the house.

R: How did that question help you with your answer?

S28: OK, they got the puppy, brought it home, and her parents, they already started to prepare for the dog and put papers on the kitchen floor, and they put a table by the floor so he couldn't get out and stuff. So they knew that he had to get house trained so they were prepared for a lot of things. And then trouble started to come, like the dog wouldn't go to sleep at night and as soon as Mary Jo left he'd start to cry. And then I kept on reading and as soon as I discovered like a few things which he did and how the dog kept everybody up and how like, everybody was so tired and then...

R: Was that important?

S28: Yes, because then I thought that something bad is going to happen and then all of a sudden the father said "I'm really getting tired of this dog" but oh, no, maybe she'll have to get rid of it now. And I kept reading and she got a brilliant idea and so I got really enthusiastic about it and I wanted to find out what her idea was. It led me toward the end of the story.

R: But why was that idea important?

S28: Well, she was getting an idea. It usually leads to some things that well, in lots of stories, they usually have happy endings. When she got this idea I thought, well, it must be a good idea because she didn't want to tell anybody. And it was something big she was lugging up. And at first I didn't have the slightest idea what it was going to be. And I found out it was a folding bed. And then it dawned on me she was probably going to stay with him. And then that really helped. And then I could see he's probably going to get trained and he won't cry as much anymore.

APPENDIX E

WHY INFORMATION IS IMPORTANT: GENERATING AND VERIFYING PREDICTIONS AS EXPLAINED BY SUBJECT 21

APPENDIX E

WHY INFORMATION IS IMPORTANT: GENERATING AND VERIFYING PREDICTIONS AS EXPLAINED BY SUBJECT 21

S21: Well, they wanted it. They understood that it has to be housebroken cause it was only a little puppy and that also leads to how they're going to have some things to do so that could be the main part of the story, getting the dog housebroken. Well, not really main but it's a big part of the story because getting any animal housebroken is usually quite hard because it takes a lot of responsibility and you have to - like, get it used to, like where it's going to be, where it's going to eat, where it's going to like, go to sleep and everything.

I don't know how to say this. OK. They probably took a lot of responsibility and well, it could lead up to problems because the dog might not do a lot of things that it's supposed to.

And then the parents, they could not be dog lovers and in the first place even when they did pick out the dog, not even want to get it, so I was just thinking, one little thing and the dog might have to go back...

And so I started reading until I'd find out what the parents would do.

Well, it's like getting it housebroken and the parents may react to that if he doesn't do everything properly and how the girl really wanted a dog and if anything, like if it has to go back she'd probably be really, really sad. And so that was pretty important, I thought because it does lead up to the main part of the story because that's probably the main problem. And it was after I read it. "She staggered sleepily from her warm bed to the kitchen a dozen times a night". Alot of people don't like to get out of their bed if it's warm but she wanted a dog so badly that she could. And she went a dozen times a night so that was pretty good on her part for the dog. And "as tired as she was" then again I just said "Mary Jo could never feel angry with him because he was so joyful each time she appeared at the kitchen door...". Well, that showed how she loved him alot because she could never feel angry and that's like, even with people you can get like that, if you're with a little kid or something. You can never really get mad at them. Because of their face and stuff. "Teddy woke the others with his piercing, sad little cries". Well, that also leads to the problem, and I thought that the parents might get mad at that.

The problem is, in my mind, that the dog, I kept on thinking that the dog might have to go back. Because in the first place, the parents didn't even want the dog. If the dog was like that all the time then they would probably have to get rid of it because the parents would get fed up. "'When is this ever going to end?', Mary Jo's mother asked at breakfast. 'I don't remember ever hearing of any puppy crying as many nights as this one has.'" They were getting fed up, you could see that, because they're complaining. Then his father goes, "I'm beginning to wish we had never seen that dog" and I thought, oh, no. And then they're probably going to get rid of it now. And I underlined "wearily" so the dog was keeping her father up. So the mother and father were getting a little mad at that. "I'm responsible" I underlined because she is and that she'll probably do something about it so then you get, sort of like wondering how, what the girl's going to do because she is so responsible.

Well, responsible, she's going to find an answer to that problem so you want to find out what she's going to do and if she's responsible enough, she will find something. And if not, well... I don't know, but she'll keep on trying, I think, to find a way to keep the dog quiet. "She saw something there that gave her an idea" and when you find out what the idea was that helps a lot in the story because you get interested in what it's going to be. And then "You'll be able to sleep tonight. I've thought of a way to keep Teddy quiet." "'What is it?' asked her mother. 'You'll see'."

APPENDIX F

USING KEY WORDS: PATTERNS OF CHUNKING INFORMATION

S2: Key Words - Maximum Information

Stand in front of a mirror. Open your mouth. Say "ah-h." What do you see? Your tongue.

Your tongue is very important to you. It helps you chew and swallow food. And it has an even more important job. It helps you talk!

Other animals need tongues too, even though they don't speak. Some animals wouldn't have food if it weren't for their tongues. Their tongues are their most important tool for getting food. And they use their tongues to "handle" food as they chew and swallow.

Snakes use their tongues to find prey, or animals to eat. When a snake flicks out its tongue, the tongue picks up smells from the air and ground. When the snake draws in its tongue, it places the tongue near two pits in the roof of its mouth. These pits do the same job your nose does—they smell things. So, thanks to its tongue, a snake can follow the scent of an animal.

After a snake has caught its prey and has begun to swallow, it no longer needs the tongue. It just slips its tongue into a covering on the floor of its mouth.

Most animals' tongues are fastened at the back of the mouth. But the tongues of most frogs and toads and a few salamanders are fastened at the front! They can shoot their sticky tongues forward to catch insects.

The stars of this shooting-tongue parade are chameleons. Their tongues can reach a distance as long as their body and tail, and even longer! Spying an insect, a chameleon slowly moves into striking distance. In an instant, the chameleon zips out its tongue, captures the prey with the sticky tip, and pulls it back into its mouth. When not using its tongue, the chameleon bunches it up like a jack-in-the-box.

The anteater would never be able to satisfy its giant appetite for ants and termits by picking them up one at a time. It has to get food in king-size amounts. Its tongue helps it do this.

When an anteater finds an ant or termite nest it tears the nest apart with its sharp front claws. Then it jabs into the nest with its very long tongue. The insects stick by the hundreds!

They stick because the tongue is coated with gluelike saliva. An anteater's tongue gets a new coating of saliva every time the animal draws its tongue back into its mouth.

Giraffe tongues are about as long as the anteater's. The tongues of giraffes are prehensile. That means that they can curl their tongues around leaves. Then they pull the leaves from trees.

Members of the woodpecker family capture their prey with different types of slender, hard-tipped tongues. One common type of tongue is spear-shaped. Woodpeckers use it to spear large insects. First the woodpecker uses its bill to dig into an insect's tunnel in a dead tree. Then out comes the long tongue. It twists and feels along the tunnel until ZAP! it stabs its prey.

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Every animal's tongue is designed to perform in a special way. Next time you see a tongue in action, take a really close look at it. You will see how tricky some tongues can be!

3. In this passage the author mainly tells you that: Tongues of animals help them eat or catch prey.

S23: Key Words - Partial Information

Baby chimps and human babies grow and learn in different ways. One scientist raised a baby chimp at home with his own baby son, Donald. The two were treated the same. They played with the same toys. They were taken on talks together. They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was the first to follow orders like "Come here." She was stronger than Donald. She could use her hands and fingers better. But after many months, Donald began to catch up. He was the first to start drawing instead of just scribbling. And Donald learned to do something the chimp never learned to do - pronounce words and talk.

4. In this passage, the author mainly tells you that human babys and chimpanzees progress in diffrent ways even in the same envisonment

S20: Key Words - Unaccounted for Information

Baby chimps and human babies grow and learn in different ways. One scientist raised a baby chimp at home with his own baby son, Donald. The two were treated the same. They played with the same toys. They were taken on talks together. They were tucked into bed at the same time. At first the chimp seemed to develop faster than Donald. She was the first to follow orders like "Come here." She was stronger than Donald. She could use her hands and fingers better. But after many months, Donald began to catch up. He was the first to start drawing instead of just scribbling. And Donald learned to do something the chimp never learned to do - pronounce words and talk.

4. In this passage the author mainly tells you that:
   - a. baby chimps learn faster than humans do
   - b. human babies learn faster than chimps do
   - c. chimps and humans grow and learn in the same way
   - [✓ d.] chimps and humans grow and learn in different ways